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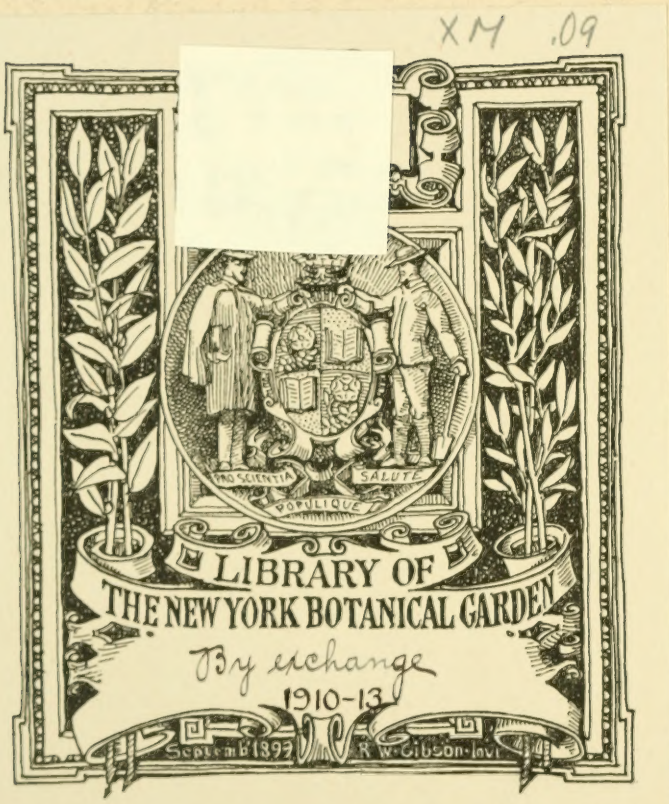
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THE MOUNTAINEER

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VOLUME III.

NOVEMBER, 1910

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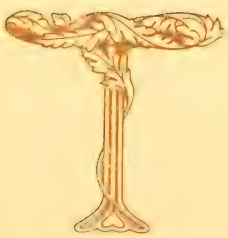
GLACIER PEAK

Photo by Lindsley

Greetings:

Henry Van Dyke



L.H.D.
Avalon,
Princeton, N.J.

"My heart's in the Highlands", and my desires are with the mountaineers still, though my days for walks above ten thousand feet are past. I got that high summer before last; but beyond that the little old red pumps begins to wheeze and complain. But there is still plenty of fun on the moderate levels; and sometimes it seems as if the best views were from the little mountains standing off and looking up.

My best wishes go with those who climb the hills and scale the peaks of our own wonderful land. The finest of all mountaineering is the making of trails that others can follow to the heights.

Faithfully yours

Henry van Dyke

October 20. 1910.

I will send the Club greeting in the words of Ibsen's Little Eyolf in final speech of Allmer in the play . . . . . .

"Upwards — Towards the Peaks, towards the Stars, and towards the Great Silence" . . . . . .

. . . . . Yours, ...

. . . . . Richard Burton

THE MOUNTAINEER

VOL. III SEATTLE, WASHINGTON, NOVEMBER, 1910

OBJECTS OF OUR CLUB.

By EDMOND S. MEANY.
President of The Mountaineers Club.

The Mountaineers Club was organized to climb mountains. That fact is implied in its name. Every summer the big annual outing is conducted as carefully planned during the preceding winter. The four annual outings have been successes on an increasing and encouraging scale—the Olympic Mountains Outing of 1907; Mount Baker, 1908; Mount Rainier, 1909; and Glacier Peak, 1910. The men and women who participated in one or more of these outings and who ascended these great peaks under the banner of our club exceed two hundred in number.

The above brief and truthful statement would probably suffice for the ordinary person's conception of The Mountaineers Club and its objects. But that statement falls far short of conveying an adequate idea of the objects of our club.

In the first place, The Mountaineers Club comprises four hundred men and women who love the mountains. They also love the forests and valleys, the rivers, lakes and the boundless sea, they love the trees and flowers, the birds and animals, they love the beauties and wonders of nature, among which the mountains seem but one sublime manifestation. By seeking the joy of seeing and knowing these beauties they gladly turn and point the way for thousands of their fellows to see and know in pure and endless joy.

This is a new country. It abounds in a fabulous wealth of scenic beauty. It is possible to so conserve parts of that wealth that it may be enjoyed by countless generations through the centuries to come as well as by countless individuals of the present generation who have not learned the way to the hills. This club is vigilant for a wise conservation and it is also anxious to blaze ways into the hills that anyone may follow.

A year ago the officers of the club heard that majestic cedar trees were being illegally destroyed along the wonderfully beautiful road in the Mount Rainier National Park. It was being done under the screen of a perfectly sensible contract permitting the use of dead and down cedar timber. Instantly agents of the club were sent to the ground who with cameras obtained evidence that caused the authorities at Washington City to stop the vandalism. Every reader of these words should applaud that work for the National Park belongs to all the people.

For a similar measure of protection this club persuaded President Roosevelt to proclaim the Olympic Mountains as a National Monument. There is another immense and beautiful park that belongs to all the people for all time.

On every outing the club expends much money and labor in constructing new trails or improving old ones that those who follow may find and enjoy the same beauties. By example, precept and law, where needed, the club seeks to prevent forest fires, the destruction of trees, plants, birds and animals, the pollution of streams, or any other harmful thing to the wonderful inheritance God has so lavishly bequeathed to the children of this favored Pacific Northwest.

The Club has a committee at work preparing a card catalogue of all the trails in Washington. All helpful information is to be recorded on the cards so that they will serve any party planning a trip into forests or hills. It is, of course, an enormous undertaking but every card completed is that much gain and years of patient effort ought to bring the catatlogue near completion. It is proposed to keep this catalogue on file in the Seattle Chamber of Commerce for the use of the public.

We wish to save old names and to bestow new ones of an appropriate kind where no names are known. With this in view we now have a committee at work in cooperation with the national authorities.

There has also been appointed an Edelweiss Committee charged with the duty of securing seeds and plants of the Edelweiss from the Alps to further beautify the grand peaks of Washington. This committee will then expand its functions by establishing in Paradise Valley a garden of mountain flowers and shrubs such as are maintained by five of the nations of Europe. Correspondence to this end has already

begun. The work is manifold. There are plants in Alaska of surpassing beauty that may be brought to our mountains. One suggestion has been made that this committee may help cities get squirrels for their parks as has been done in Madison, Wisconsin, Harrisburg, Pennsylvania, Richmond, Virginia, and elsewhere.

By no means the least of the Club's activities has been reserved for the last. The summers are devoted to the annual outings. The other seasons are occupied with local walks. Twice each month parties from twenty to one hundred follow a designated leader on a tramp through the woods and over the hills. They are not people of any bizarre creed. They are just nature lovers from all walks of life who seek a wholesome recreation along paths in the forest or on the shores of Puget Sound.

* * *

Photo by A. H. Cruse

THE PARTY LEAVING CAMP FOR A TRYOUT TRIP

DOORS OF DARING.

HENRY VAN DYKE.

The mountains that enfold the vale
With walls of granite, steep and high,
Invite the fearless foot to scale
Their stairway toward the sky.

The restless, deep, dividing sea
That flows and foams from shore to shore,
Calls to its sunburned chivalry
"Push out, set sail, explore!"

And all the bars at which we fret,
That seem to prison and control,
Are but the doors of daring, set
Ajar before the soul.

Say not, "Too poor," but freely give.
Sigh not, "Too weak," but bodly try.
You never can begin to live
Until you dare to die.

—From "The White Bees and Other Poems."

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Photo E. W. Harnden

ICE COLUMNS, TOBY GLACIER

A NEW MOUNTAIN COUNTRY.

Edward W. Harnden.

The editor of the "Mountaineer" asks me for an account of the doings of the Appalachians this past season. I assume, modestly, that she refers to the doings of Mr. Gleason and myself—in which, until the last moment, Mr. Emerson hoped to join. We had *talked* of climbs in old Mexico or southwestern Colorado, revisiting the Grand Canyon, etc., and at the last moment, like Dooley's "Happy and riochous flea," we jumped without preparation or ceremony to the headwaters of the Columbia, in western Canada. Gleason had a little prior knowledge of the region, but I had listened cynically to his enthusiastic boosting. I return, however, ready to bore the Mountaineers and others, myself. So listen to the siren song of a new, beautiful, unexplored mountain country, almost at your doors, with the finest peaks in western Canada, most of them still unclimbed. "Dost like the picture?"

Leaving the main line of the Canadian Pacific at Golden, we boarded a flat, light-draft stern-wheel Columbia River boat for Athelmer, about ninety miles south and at the head of navigation. Much is truly said and written about the beauty of the Columbia and its superiority to the Hudson and Rhine by people who simply know the river up to The Dalles in Oregon. Its real, transcendent beauty is near its headwaters. From Golden to Athelmer majestic mountains line the banks—to the west the Selkirks, to the east the Rockies; and the sinuous course of the stream—while it sometimes causes the stranding of the steamer on a bar or projecting point from which it has to be laboriously poled—offers marvelous shifting vistas into the unexplored and more highly mountainous and glaciered region a little back from the river. You can travel by auto or team on the road that threads together the few small, scattered hamlets at which the boat occasionally stops to unload a plug of tobacco or something equally important; and within a few years, if present plans are carried out, the

locomotive whistle of what may eventually be a part of the main line of the Canadian Pacific will awaken the mountain echoes. It is a marvelously beautiful valley, holding out alluring prospects for the rancher and tourist.

A six-mile trip from Athelmer landed us at our Windermere village headquarters, on the east shore of Lake Windermere, the lower of the two Columbia lakes. The village is beautifully situated on one of the benches. These rise to successive levels and terrace back into the hills, showing the breadth of the river in past ages and the way it has carved these giant steps with its continually narrowing channel. The even, broad surfaces, only interrupted by occasional deep-gashed ravines made by the side streams from the mountains, are sparsely sprinkled at curiously regular intervals with fine specimens of the Douglas fir. These are the only trees on the benches, although the ravines are more or less choked with alders and other small growth.

Our explorations were to lead us along the side creeks or tributaries of the Columbia, which form natural gateways for men and pack animals into the high, backlying Alpine country. But the thick smoke from the forest fires of Montana, just to the south—which later prevented a proposed visit to the new Glacier National Park—enforced two weeks of idleness. We planned the ascent of an unscaled 10,500 or 11,000 foot peak of the Rockies, which seemed to offer a splendid viewpoint, but the blanket of smoke would not lift. A partial clearing enabled a young rancher and myself to visit the upper Columbia lake, getting a tantalizing suggestion of some magnificent, precipitous scenery; and near the foot of the lake, on the steep rock walls of a narrow pass where Indian tradition says the local Kootenays in the remote past ambushed and overwhelmed an invading force of the previously dominant Blackfeet, we found and photographed some ancient Indian pictographs which evidently recorded the battle. We were also interested in two Indian praying places near by, where the present-day braves who pass still deposit small fir branches broken from neighboring trees as they ride along, keeping up, in spite of the efforts of the priests, the primitive votive offerings to their old gods.

Gleason had raved about Toby Creek, a western tributary of the river which offered an approach to the high, back-lying

Selkirks; and finally, heavy rains laying the smoke, we started with a pack outfit up the stream. A day on the trail brought us to the Paradise mine, well up in the hills, 8000 to 8500 feet above sea level. We were here at about the timber line, with nothing but Lyell's larches and white bark pines. From the mine we planned a reconnaissance of Mount Hammond, a hitherto unclimbed peak, which has been attempted by Professor Parker and others. From a ridge above the mine we obtained one of the finest distant mountain panoramas I have ever seen. The view of the distant Rockies through the clear atmosphere, the combination of the snow, ice and delicate blues of the peaks—old Assiniboine rearing its bulk in the middle distance—was indescribably grand.

Our party consisted of Mr. C. D. Ellis, a young local rancher, Mr. H. W. Gleason and myself.

The morning of September 2 promising well, Ellis and I started, Gleason staying behind to do certain panoramic work for which the day was favorable. Our starting elevation was 8000 feet and our route lay due west for some distance to the head of Paradise Basin. The divide at the head of the Basin forms a barrier between Spring and Clearwater Creeks. The elevation of this divide was 9,605 feet, and from here we slowly traversed the precipitous sides of a high ridge which we had been told would bring us well up on Hammond.

It soon became clear that we had been badly advised. The ridge, instead of connecting with Hammond, was separated from it by an enormous, deep-cut gulf, and it was evident that we were really on the wrong side of the mountain. To get to the other side we must vary our course to slightly south of west and drop from the ridge upon which we had already risen, nearly 700 feet, to a small lake at the head of Clearwater Basin. From that point we must attack an almost vertical rotten-rock wall which we afterwards found rose sheer 1,225 feet above the little lake, before we could even determine whether Hammond was feasible from the farther side. In surmounting a small ridge near the lake we met face to face, within fifteen feet, two of the finest mountain goats I have seen. Before I could unlimber my camera they were climbing the mountain wall in front of us, now and then stopping to kick rocks down in our direction.

The actual hard climbing began at the lake. The wall rose

almost vertically and erosion had left few accessible faces. The rock was extremely rotten, great care was required, and we had a stiff, muscle-testing climb of several hours. At the top we paused to look around. Below the little lake shone like an emerald, while all about lay a panorama of magnificent, unnamed peaks, to the east the expanse of the Rockies and all about us the Selkirks. The mountains in the neighborhood are largely of limestone, with a reddish tinge, suggesting, except that the snow and ice effects are more striking and that the erosion is more rugged, the mountains of Colorado and Montana.

The steep ridge which we had surmounted continued rising to the south, terminating in the magnificent crown of Hammond. We followed its knife-edge until an elevation of 11,000 feet was reached, and we now stood on a narrow arete, with a chasm on either side into which the rotten rock was continually avalanching. It was now entirely clear that we had been climbing from the wrong side, a comparatively easy route from the north fork of Toby Creek, attacking the summit from the west, becoming evident. But clouds on the horizon indicated approaching bad weather, apt to last for days—as afterward proved to be the case. Gleason had told us to climb the mountain without him, if in our judgment it appeared best. It seemed now or never. The worst part of the climb was over. But, alas! it was my first climb after a hard, office-confined year. We had already had an exhausting experience, I had not got my mountain wind or legs, and a rapid dash, requiring the balance and endurance of perfect condition, was necessary if we hoped to make the summit and return to our camp that night. So I reluctantly consented that Ellis, who was in perfect condition, should make the dash alone, I watching and trying to render help if necessary.

Taking a course a little west of north, Ellis continued until he found himself overlooking Boulder Creek and immediately under the crown of the summit. Here a bastion of hard limestone that had withstood the ravages of time blocked the way. The elevation at this point was found to be 12,000 feet. Following the bastion south and east about fifty feet, the first fissure suggested a possible opening, but was found to be closed by a large rock that had fallen into the crevice. Ice and water made an attempt here impracticable. A little farther on, a

Plate III.

Photo E. W. Harnden

MOUNTAINS SOUTHEAST OF EARL GREY PASS

Plate IV.

Photo E. W. Harnden

CAMP AT EARL GREY PASS, WITH MOUNTAINS TO THE SOUTH AND SOUTHWEST

smooth, dry crevice was passed. A third crevice seemed to offer a chance, although the crumbling rock offered no secure foot and handholds, and once loosened and precipitated down the steep mountain wall by the quick ascent would render a return by the same gap very doubtful if not impossible. Mr. Ellis, however, ascended this third crevice, taking a chance of finding a different way to return, which he fortunately subsequently discovered—hanging by his hands and dropping about six feet to a precarious landing.

The summit, reached about the middle of the afternoon, was found to rise to an altitude of 12,125 feet. It is covered with fragments of green lime shale tinged with red iron stain. The whole top would long since have disintegrated and fallen away but for the bastion of limestone just below. The crown is split in almost equal parts, the south summit being only a few feet higher than the north. Mr. Ellis made his records, placed them in a bottle and deposited them in a cairn which he hastily built. Hammond is the loftiest peak yet conquered in the Selkirks; but she must look to her laurels, as many not distant peaks are evidently higher.

We returned to the mine rather late in the evening. The climb was certainly strenuous. Ellis found, on subsequently returning to his ranch, that he had lost fifteen pounds, and the strain was so great that even several weeks later he had not entirely recovered.

A later trip of a week to the head of Toby Creek, culminating at Earl Grey's Pass, and up the North Fork of the Creek, was full of striking features. Our trail, constructed last year for Earl Grey's party, so that they might see some of the grandest scenery of British Columbia, led us up through the floor of the valley, the grade of which rises so slightly that it is being seriously considered as a grade-eliminating line of the railroad. But, while the valley bed rises but slightly, the mountains loom higher and higher, beautiful waterfalls leap down the precipices, snow-topped and glaciered mountains greet the eye, and you presently find yourself in the heart of an Alpine world.

Spending the night in the fine cabin built for the Grey party, overlooked by two towering "Egyptic"-looking rock figures which the Earl christened "the Pharaohs," we got a good start on a fine morning for the head of the pass. The

cabin lies well up on the sloping side of the valley, which, narrow below and narrowing again above, here widens into a broad basin affording an extensive and wild mountain view. We soon left this basin and plunged into splendid woods, with occasional openings and vistas. Emerging in several hours from the forest a magnificent scene met our view. To our left, sweeping up to its source among towering peaks, lay the huge Toby Glacier, the source of the creek. Well up in the glacier, to the southeast, rose a group of some of the most striking column-like seracs I have seen, which we subsequently visited and which I dubbed "The Temple of Karnak."

Our trail, which had been going south, here swung slightly to the southwest, traversing a steep slope overlooking the Toby Glacier and culminating at 7,500 feet, after a stiff climb, in Earl Grey's Pass, which suggests botanically and in general appearance some of the higher Rainier meadows. On the farther side of the pass is Hamill Creek, leading down to Argenta, twenty-five miles away. The evident presence of bears was too much for our horses, which stampeded during the night, one of them not stopping until he reached the Earl Grey Camp.

The next morning, from the summit of the pass, from east to southwest, we saw a sweep of unnamed and unclimbed summits hardly to be surpassed in Switzerland, suggesting features of the Monte Rosa-Lyskamm-Breithorn view from the Gorner Grat and of the Jungfrau group from the Scheidegg. To the east was the broad expanse of the Toby Glacier, to the southeast the towering peaks we had already seen from which the Glacier sweeps, and to the south one of the noblest mountains, bearing some of the most beautiful and pure glaciers, that I have ever seen. We were spellbound, watching for hours that seemed but minutes the changing morning lights and shadows, the majestic repose broken by occasional avalanches over thousand-feet high ice walls and cliffs. Here are mountains worthy the steel of any climber, and here we hope to return, our trip this year having been in the nature of a reconnaissance.

Retracing our steps down Toby Creek, a day's journey took us to the head of the North Fork, into which we had got a glimpse from Hammond. Here, also, high up on a precipitous 9,000-foot ridge, we found ourselves surrounded by magnificent,

Plate V

Photo E. W. Harnden

MOUNTAIN SOUTH OF EARL GREY PASS

Plate VI.

Photo E. W. Harnden

ICE COLUMNS, TOBY GLACIER

rugged Alpine summits, attaining a height of perhaps 12,500 or even 13,000 feet, with seven tremendous glaciers in sight within a small radius. One of these, to the northwest, a splendid, mountain-wide hanging glacier with a sheer 1,000-foot ice-wall, continually avalanched huge blocks over a terrific precipice across the valley from us.

Our expedition up Horse Thief Creek, a tributary of the Columbia a little north of Toby and also on the western or Selkirk side of the river, offered even more dramatic scenery in some respects. Exploration and climbing on this creek is simplified by the fact that one can get outfitted at Starbird's Mountain Valley Ranch, about thirteen miles up. Beyond the ranch the scenery becomes indescribably grand. In places sheer, precipitous 6,000 or 7,000-foot cliffs rise on either side of the narrow valley, cliffs which I have never seen equaled, even in the famous Tuolumne Canyon of California. At other points the walls recede, showing glimpses of even higher snow-capped summits beyond. It is a two days' trip from Starbird's to the head of the creek, and at a point a few miles from the head is one of the grandest viewpoints that Gleason or I have ever seen. The sides of the valley recede so as to form a deep bowl. There are in sight at one time four magnificent waterfalls and cascades plunging down from the steep, canyon-like walls, while to the west, at the head of the valley, a magnificent mountain rears its bulk. It bears a tremendous double glacier, two huge ice streams having united and left a fine medial moraine on which an exploring party could advance high up on the glacier and perhaps get a good start to climb the mountain.

The whole region, besides its attractions for the mountaineer, is also a hunter's paradise, abounding in goats, mountain sheep and grizzlies, of which we saw evidences on every hand.

Our trips on the eastern or Rocky Mountain side of the river were less extensive, although interesting, our tramp up to the curious, volcanic appearing Fish Lakes leading us through a short canyon having the U-shaped Yosemite characteristics.

We were now in first-class tramping and climbing condition, had our mountain legs and were ready for anything: but, alas! our holiday was over. We had, however, accomplished

our main purpose, which was to size up the country and form ideas as to what we would like to do another year.

I returned with these facts firmly in mind. Never, on this continent or in Europe, have I seen such a magnificent, flawless combination of mountain, river, lake and glacial scenery; never have I passed between more dramatic mountain walls or seen more striking cataracts and falls than along Horse Thief Creek; and never, with the possible exception of the view from the Gorner Grat, have I witnessed a more glorious mountain and glacier panorama than greeted us from Earl Grey's Pass or at the head of the North Fork of Toby Creek.

Gleason and I can simply hope that another season will bring to us the opportunity to become more closely acquainted with those alluring summits.

> *"To take again the faint and wind-swept trail,*
> *To see the naked mountains, shale and snow,*
> *To feel again the hill-wind and to know*
> *The spell that shall not fail."*

A CASCADE BIRD DAY.

Adelaide Lowry Pollock.

The lakes which repose in the bosoms of the hidden nooks of the Cascade Mountains are most delightful places to drop the cares and worries of everyday life and to seek communion with the things of the spirit. There, miles away from the clang of traffic and the insistent call of the telephone a "Mountaineer" with vision can appreciate the beauties with which Mother Nature clothes herself in the secret places of her rugged mountains. One finds, in time, that the shady side of a red fir, isolated from its fellows, can be followed all day with but little wear on body or boots. If such a "Mountaineer" has ears that hear and eyes that see there will come to him many glimpses into the higher life through messages from sky, twig, flower, or bird.

Lake Kachees, three miles from Easton, on the eastern slope of the Cascades, was, at the time the writer visited it, one of these places. It lies in a deep narrow valley 2235 feet above sea level, surrounded by great mountains, which, except at the source of the Yakima River, slope down abruptly to the very edge of the water. The lake is a double one connected by "the narrows." The fauna and flora appeared to be a mixture of the eastern and western slopes of the range. On the mountain sides the cedar, the red fir and the hemlock grew side by side with the yew, the white fir, and the white pine. On the lower levels were alders, vine maples, balm and cottonwoods, and the shrubs were represented by the red and the blue elderberry, the red and the blue hucklberry, the hazel, the spirea, the service berry, and a few willows. In the little valley where the Yakima left the lake, fireweed, live-for-ever, and Oregon grape were abundant. It was an ideal spot in which to live and many birds had made it their abode.

Many people would have missed the bird life, but even in the hottest part of the day it was there. From the shade of the red fir the writer once caught the calls and then the forms of a flock of Chestnut-backed Chickadees, Western Golden-crowned Kinglets, and a pair of Red-breasted Nuthatches. As usual, the Chickadees were curious and as they flew closer and closer they were joined by a pair of Oregon Juncoes and four young. When the Juncoes caught sight of the human intruder they began scolding as they do at a cat with a peculiar kissing sound. It was too much of an inducement and as they proceeded the writer followed into the apparently silent, deserted forest. The reward soon came in the "pink-pink-pink" hail, friend, well met call of the Western Winter Wren, that atomic bit of bird life which never seems so tiny as when seen poking its inquisitive head around a huge tree-trunk to greet you. Then came in quick succession the Pine Siskin, the Louisiana Tanager, the Slender-billed Nuthatch, the Western Nighthawk, the Harris Woodpecker and the Red-shafted Flicker. A crag, which had evidently lost itself in the forest, invited the mountaineer spirit to its topmost pinnacle. Here, perched on a level with the treetops, the impulse to try one's luck at flying was strong, but generations of failure in the realm of aviation had left instincts of caution. Opposite, from the slender spire of a red fir a tiny

brown mite flashed out and with spread wings sailed to the base of another tree, about the trunk of which he began to circle. The opera-glass said it was the Sierra Creeper at his endless task of filling an empty stomach, and with what interest he stayed at his work until the frightened call of a pine squirrel caused him to "freeze" to the side of the tree where he was lost to sight from his resemblance to the rough excretions of the bark.

Far above came the cry "Just three years," and again the opera-glass displayed, balanced on the very tip-top of a dead tree, an Olive-sided Flycatcher repeating his phrase over and over. Suddenly he boldly launched out into the open air and turned a somersault two hundred and fifty feet above the ground. He caught his prey midway in the turn and returned to his solitary perch where, hunching up his shoulders and shifting his head from side to side, he resumed his disconsolate wail. The dismal solo soon became a duet, but the second singer's tune was the melancholy "Dear me," of the Western Wood Pewee, awakened from his afternoon nap making his customary unfavorable comments upon life. It was but a moment before he darted into sight but not aimlessly, as the damsel fly he was after possibly had time to consider before it was swallowed. The day's good fortune was not yet ended, because on the way back to camp was seen a Yellow Warbler, a Belted Kingfisher and a MacGillivray Warbler. Then at the evening meal a Steller Jay and a Gray Jay joined the circle with insistent demands for a share of that which had been provided. In thankfulness for the uplift of the mountain day they were not grudged their portion.

REPORT OF THE BOTANISTS.

Dr. Cora Smith Eaton and Winona Bailey.

Next to the grandeur of mountain peaks themselves, with their vast snow fields and rivers of ice, their rocky steeps and pathless forests, nothing more frequently claims the attention of the Mountaineer, and calls forth his expressions of delight than the flowers that carpet the hillside, or hide

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MOUNTAIN SMARTWEED (*Polygonum bistortoides*)

modestly under cliff or brush. Quotations about nature are never called for at Sunday evening camp fire without someone revealing where his thoughts have been by Gray's lines—

> *"Full many a flower is born to blush unseen,*
> *And waste its sweetness on the desert air."*

Another calls up the deeper mystery Tennyson gave utterance to in the lines—

> *"Flower in the crannied wall,*
> *I pluck you out of the crannies;—*
> *Hold you here, root and all, in my hand,*
> *Little flower—but if I could understand*
> *What you are, root and all, and all in all,*
> *I should know what God and man is."*

The botany bunch was reinforced this year by a goodly company of helpers. Chief among these was Dr. H. B. Hinman, of Everett, who made practically all the valuable collections of the trip. He would find the choicest specimens in an apparently barren spot where most of the party would declare nothing grew. He would climb perpendicular cliffs and clinging to a ledge in mid-air, gather the treasures hidden from others' eyes, and all so fast that the old guard couldn't get specimens in press as fast as he brought them in.

Miss Angelica Martin, teacher of botany in the Everett High School, was unflagging in her interest and made a number of photographs illustrating the flora of mountain meadows. Miss June Oakley, who had been inspired by work under Dr. Frye, assisted, particularly in the collection of mosses. And by no means the least helpful were those who were always on hand to help change the blotters and screw up the clamps of the big press, and those whose faithful care saved the whole collection, while the botanists were on the big climb. Even Mr. Belt carried the press all one day, and the record of that service will go down in history with the picture of Mr. Belt's form on top of a rock, outlined against the sky, with the paste-boards dangling from his back.

Some fifty kinds of mosses were collected and sent to Dr. Frye of the University of Washington at his request. A letter was written to Mr. C. V. Piper of the department of agriculture, Washington, D. C., author of the Flora of the State

of Washington, published by the government among the contributions to the National herbarium, the man who has done more work than any one else on the flowers of the state, asking him what kind of report should be made to him on the flora of this hitherto botanically unexplored region. A short time after Mr. Piper, while on a visit to Seattle, called in person to see the collection made by the Mountaineers; later about thirty specimens were sent to him for determination.

On no previous trip have such extensive beds been seen of one kind of flower growing to the exclusion of all others, except perhaps, the great slopes of the avalanche lily, (*Erythronium montanum*) on Mt. Rainier, which, strange to say, was not once found in the Glacier Peak region. The yellow lily, or dog-tooth violet, (*Erythronium parviflorum*) took its place. Mr. Nelson reported acres of it covering the lower slopes of Sunset Mountain when he made a preliminary trip earlier in July. When the main party reached camp, only the seed vessels were to be seen on this slope, but just beyond the men's quarters, on the trail back from Liberty Cap was a little hollow filled with nodding yellow blossoms belated by the slow melting of snow on a north slope. On Sunset Mountain the slopes had put off their golden hue and turned to white, the fluffy white of myriads of spikes of a mountain smart-weed (*Polygonum bistortoides*).

All the way up Buck Creek and down all the branches of the Suiattle the banks of the streams were lined with the great gorgeous crimson monkey flower (*Mimulus lewisii*), named by Meriweather Lewis after his famous trip of exploration early in the nineteenth century. On all sides of camp were clump after clump of the white rhododendron (*Rhododendron albiflorum*), its creamy white blossoms no less beautiful than the more showy state flower, the pink rhododendron. The packers said this bush was always called by them "Snow-brush."

All Mountaineers are familiar with the painter's brush, or painted cup, or Indian pink as it is variously called, but here on the hillsides near Buck Creek pass were great masses of a greenish white variety not distinguished from the red in name (*Castilleja oreopola*). Down by the Suiattle near "camp Rain-in-the-Face" where the largest plants and the most extensive beds of the yellow willow herb (*Epilobium*

luteum) that the botany bunch had seen. The chickahamie, or little mountain badger, appreciated these, for in the hay that he had spread out to dry all around the foot of a tree were many little swaths of yellow *epilobiums*.

Nowhere in the Cascades does the heather bloom more profusely than in this section. The artists were forced to use the purplish tints of the red heather (*Phyllodoce empetriformis*) in the foreground of all their pictures, while up higher on the hills on either side of the pass, lunch was invariably eaten with the party seated in the midst of white heather (*Cassiope mertensiana*) never so pure and full of bloom as here.

No one who took the first try-out trip to Green hill expects ever to see a more gorgeous, a more variegated, a more splendid display of flowers than on the top and sides of that hill. At once some called it Flower hill and others National hill, because the effect was that of the colors of the flag. The masses of red were those of the red painter's brush, the white the *polygonum* already mentioned, and the blue, a lupine (*Lupinus subalpinus*) and a gentian (*Gentiana calycosa*). But besides these predominating colors were many others, the yellow of buttercups (*Ranunculus suksdorfii* and *Ranunculus verecundus*), potentillas (*Potentilla flabellifolia*) often mistaken for buttercups, stone crop (*Sedum stenopetalum*), slender hawkweeds (*Hieracium gracile*), and a cousin to the dandelion (*Agoseris glauca*); there was the burnt orange of the *Agoseris aurantiaca*, the white or pinkish white of the so-called mountain heliotrope (*Valeriana sitchensis*) the lavender of an aster-like flower (*Erigeron salsuginosus*), the dull cream of a wild pink (*Silene douglasii*), the pale blue of Jacob's ladder (*Polemonium coeruleum*), and the greenish silky akenes of the western mountain anemone (*Pulsatilla occidentalis*). Down on the slopes, the big sturdy stalks of green hellebore (*Veratrum viride*), which Mr. Blake thought resembled a corn field, helped the grass and alpine firs to give this hill its permanent name, Green hill.

Numberless little waxy white mountain spring beauties (*Claytonia asarifolia*) grew in the grass that carpeted the park chosen for the camping site. Yellow arnicas and senecios were abundant, (*Arnica latifolia*, *Arnica mollis* and *Senecio ochraceus*).

Just over the pass beside the trail out, grew many currant bushes (*Ribes laxiflorum*), low spreading elders (*Sambucus melanocarpa*) and mountain willows (*Salix commutata*), while down a little farther by the many rills that crossed the trail were many choice flowers, the beautiful fringed white grass of parnassus (*Parnassia fimbriata*); the tiny purplish pink willow-herb (*Epilobium alpinum*); the wonderful bog violet (*Pinguicula vulgaris*), a little cannibal among plants, that secretes a sticky fluid on its pale green greasy-looking leaves to catch and hold insects until it can appropriate their flesh and blood; the short matted mountain salal (*Gaultheria ovatifolia*), sister of our well-known lowland salal, with occasionally a species more diminutive still with very small pink bells or green berries (*Gaultheria humifusa*); besides saxifrages (*Saxifraga odontophylla*) and shooting stars (*Dodecatheon jeffreyii*).

High up on the rocks near the top of Liberty Cap and Sunset mountain grew one of the smallest shrubs in the world, an interesting little willow, not over an inch or two in height, with prostrate stems, and bearing big saucy pussies. The three small kinds recorded by Mr. Piper, (*Salix tenera*, *Salix saximontana*, and *Salix nivalis*) all grew on these mountains.

The "flower of the crannied wall" of this trip was the mountain sorrel (*Oxyria digyna*) conspicuous in many a crevice on account of its racemes of bright red seed-like flowers and shining green leaves. Word often came back down the marching line to the botany bunch from some sympathizer, "Be sure to notice that beautiful red-green flower. What is it?"

The day on Sunset Mountain yielded a rich harvest to the collector. Half way up the steep slopes our youngest member, George Hinman, found many a modest little blue hare-bell (*Campanula scabrella*) while among the rock piles of the summit grew delicate blue and white anemones (*Anemone hudsoniana*) a dwarf mustard (*Draba glacialis*), a brilliant purple rock cress (*Arabis lyallii*) small plants with leaves shaped like those of the strawberry (*Sibbaldia procumbens*) and the hardy everlasting, the edelweiss of our mountains, (*Antennaria media*).

On the way back in amongst the white heather grew many little sprigs of exquisite Alaska heather (*Harrimanella stel-*

Plate VIII.

Copyright Asahel Curtis

WESTERN MOUNTAIN ANENONE
(Pulsatilla occidentalis)

Plate IX.

Copyright Barnes

WHITE RHODODENDRON OR SNOW BRUSH
(Rhododendron Albiflorum)

leriana). Dr. Hinman found in the crevices of a big cliff beside the trail, two rare plants, one a kind of a lily, with a tiny white blossom (*Lloydia serotina*), the other white also, belonging to the waterleaf family (*Romanzoffia sitchensis*). Another day, from the next mountain beyond Sunset he brought back an interesting member of the saxifrage family which Mr. Piper declares has formerly been called *heuchera* but hereafter is to be known as *Elmera racemosa* after the botanist Elmer who has made notable collections in Washington.

On the pumice slopes of Glacier peak there were few plants and those noticed were small of their kind. There were, however, most of the kinds usually found in this soil, among them Lyall's lupine (*Lupinus lyallii*), the golden fleabane (*Erigeron aureus*), the silvery leafed *Dasiphora fruticosa*, and the sturdy *Eriogonum coryphaeum*. But there was nothing to compare in size or brilliancy with the purple aster (*Orcastrum alpigenum*), that was a constant delight on the pumice slopes above Carbon glacier on Mt. Rainier. The plant growing highest on Glacier Peak was known as *Smelowskia calycina*, which is one of the two highest plants on Mt. Rainier. This was seen on Glacier Peak at over 9000 feet elevation, at the base of the last cliffs the party rounded before reaching the summit.

The forests of yellow or bull pine (*Pinus ponderosa*) between Lake Wenatchee and the upper Chewawa and down along Railroad Creek to Lake Chelan were new to dwellers west of the Cascades. The tall trunks with mottled orange brown bark and not a branch for twenty or thirty feet gave a color to the landscape that harmonized with the bright skies of Eastern Washington, and with the sparse undergrowth made a strong contrast to our cool, dimly lighted, vine-entangled Western Washington forests. Nearer Buck Creek pass, and along all the branches of the Suiattle were giant cedars (*Thuja plicata*), hemlocks, the western hemlock (*Tsuga heterophylla*), and the black hemlock (*Tsuga mertensiana*), firs, the alpine fir (*Abies lasiocarpa*) and the noble fir (*Abies nobilis*) with occasionally our own western white pine (*Pinus monticola*), the mountain dweller, that gave our club its emblem, while up in the more sterile soil at camp Nelson grew the jack pine (*Pinus contorta*).

GLACIER PEAK.

EDMOND S. MEANY.

Thou somber king on throne of granite,
A pilgrim knocks at rock-strewn gate,
Thy hingeless gate at guarded palace,
Behold! I climb, I watch, I wait.

Was't weak to fear thy storm-swept kingdom,
To fear and flee thy ice-chilled roar,
In awe to wave a feeble gesture
Tow'rd heights where boldest eagles soar?

I do not boast a heart of valor;
No upward march of conquest mine;
I slowly creep up storm-carved canyon;—
Uncovered stand, a child of thine.

Then up thy walls I climb and clamber,
O'er thy glist'ning snowfields plod;
I come in humble love and yearning
More truth from thee, new thoughts of God.

I see thee clutch the sea-born vapors,
Then swirl and hurl through canyons steep.
Ah, whip and lash them, cloud-land fury,
No respite give but frozen sleep!

All captive here, thy conquered victims
Await release in years to be.
How cleanly gleam thy ice-locked rivers!
How slowly wind they tow'rd the sea!

Sheer lifts the ridge that parts the pathways
From swinging clouds to lands below,
Aye parts the ways through plains or forests,
The ways thy garnered streams must flow.

Thy garnered streams, man's wheels and spindles,
A thousand mills in lowlands hold.
Athrob, they turn to solve the riddle:
From cloud to ice and then to gold.

Thy garnered streams through sagebrush valleys,
Transform coyote's vagrant home
To countless miles of fruit trees laden
With luscious pearls from thy cold dome.

Forever sway thy magic scepter;
Lo, grateful men thy praises sing!
Command thy winds in battle royal
And rule thy realm, O, snow-crowned king!

Written for The Mountaineers' Campfire, Glacier Peak Outing, August 6, 1910.

RECORD OF ASCENTS OF GLACIER PEAK.

L. A. Nelson.

There are only seven ascents of Glacier Peak of which there is any record and probably owing to climatic conditions every ascent has been made in August.

The first on record was made in August, 1898, by T. G. Gerdine, of the United States Geological Survey, and four of his party. The object was to place a target, a tower with a flag on it, on the summit, to be used in determining the height of the peak from various points, and in mapping.

Their main camp was on the headwaters of the Sauk River due south of Glacier Peak. The ascent was made over the Whitechuck Glacier and along the divide between the Whitechuck and Suiattle Rivers. The climb was long and hard, not on account of the slope, but members of the party were packing poles and other material with which to construct the target. They reached the base of what was thought to be the summit, but alas, it was not, for on reaching the top they saw the real summit a mile beyond.

Mr. Gerdine said it took a long time to persuade the rest to go on, but at last they started and reaching the summit, did the work they had come to do, and returned to camp.

The next ascent was made by the late Prof. I. C. Russel in the same year as the United States Geological Survey party. This ascent was made from their camp and the same route followed.

The first ascent from the east side was made by C. E. Rusk and A. L. Cool, on August 26, 1906. Their main camp was at Buck Creek Pass and timberline camp was on the ridge north of the Cool Glacier. The ascent was made by following this ridge, then over the Chocolate Glacier to the saddle south of the peak, from which point the route of the former ascents was followed. The ascent was made in five and one-half hours and the descent in three hours.

The fourth ascent was accomplished by three "Mountaineers," M. A. Krows, P. M. McGregor, and the writer, on August 1, 1910. There was no trail from Buck Creek Pass to timberline on Glacier Peak.

The object of this ascent was to cruise out the best route for the club to follow on the official climb. Leaving camp (elevation 5,796 ft.), at 5:45 a. m. on July 31, 1910, each with a thirty-five pound pack, we proceeded down Meadow Creek about a mile, then southwesterly to Rock Creek, three miles from camp, across this stream and over a point to the Suiattle River, one-half mile (elevation 3,800 ft.) We followed up this stream a mile and crossed on a fallen tree. Here we left the river and took a westerly course up a ridge and gradually sloping bench to Chocolate River one and one-half miles. Crossing the river on a convenient log we climbed to the bench above and went west along the edge of the canyon one half mile then turning south to the point of a hill, we continued westerly up this side hill one and three-fourth miles. At this point we came out to the edge of the cliff where we could look down on the Chocolate Glacier 500 feet below us.

The glacier made a bend here and our course was changed to southwest as we followed a goat trail along the cliff overlooking the glacier. After following this trail about a mile to the place we judged right, we turned and went south along a side hill three quarters of a mile, coming out into the park we had picked from Buck Creek Pass as a possible temporary

Photo by A. H. Cruse

L. A. NELSON, THE LEADER

Photo Chas. Albertson

A CREVASSE BELOW THE SUMMIT OF GLACIER PEAK

camp. Our judgment proved good for it was a very delightful camp.

We arrived at 3 p. m., having come ten and one-half miles, our elevation being 6,150 ft. The country between the Chocolate River and temporary camp is cut by a great many ravines and canyons so a direct route can not be followed.

After choosing a camp we left our packs and climbed to the top of a pumice ridge to the south and about 1,000 ft. above camp. Here we could easily choose the route of ascent. Two presented themselves—one the route of the Rusk and Cool ascent, and another along the ridge due east of the summit. We chose the latter as the most direct although the steeper of the two.

We saw three goats coming down the pumice ridge and watched them a long time.

We coasted most of the distance back to camp and soon had dinner ready. While eating we heard a noise in the valley below us and looking through the trees saw a goat calmly making his way towards camp evidently to call upon us. It came to within forty feet of camp and on seeing us, suddenly remembered an engagement it had down the valley. We saw three more goats across the valley from camp.

As a signal to the main party in camp at Buck Creek Pass, that all was well, a fire was built and green boughs piled on to make a big smoke. Just as the fire was about out we heard a call from the summit of the pumice ridge and thought it was a goat, but upon looking, saw a man. With a "Get something to eat ready," I started to meet him. After climbing 800 feet above camp I found J. A. Blosser, of Snohomish, who had come in by way of Darrington, and had left the head of the Whitechuck River that morning. I took his pack and soon we were in camp, where he was given a square meal of soup, etc. (mostly soup).

Next morning, August 1st, we three left camp at 4:45 a. m. for the summit, with clouds all about us. On reaching the pumice ridge, however, the upper clouds drifted away and we could see all the higher peaks. We followed this ridge to near where it terminated in a cleaver dividing two ice fields, then we swung north, up and across the Cool Glacier to the ridge running east from the summit. The slope was a bit steeper than one cares to go straight up, but a few

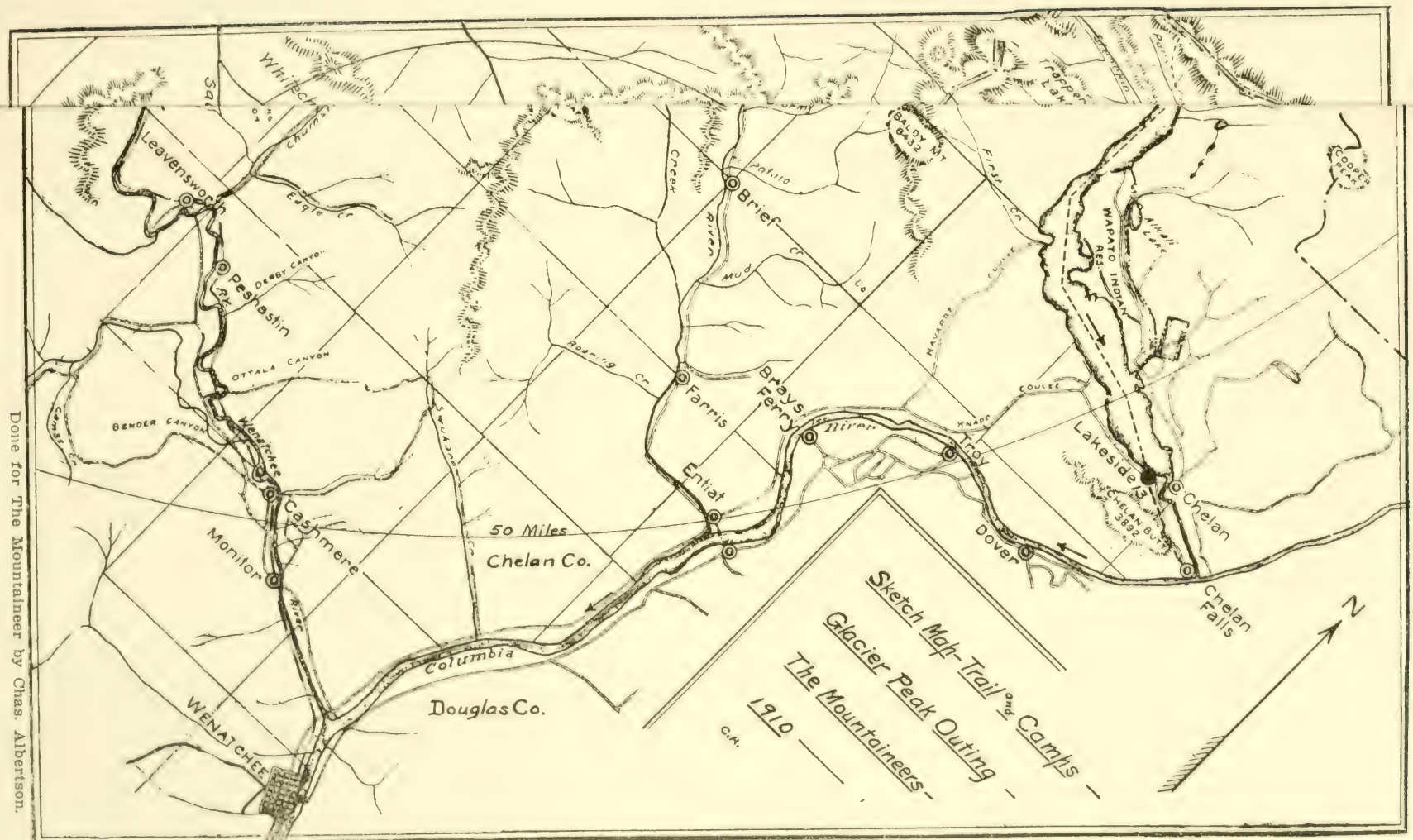
switchbacks brought us to the crest of the ridge where the grade was easier, but the wind blew a gale and we kept our feet with difficulty. We found some rock to ascend and in one place it was rather interesting work. Here we stopped twenty minutes for lunch and reached the summit at 8:45 a. m., four hours from camp. This was the first ascent by this route, a wholly eastern one.

We wrote our record, deposited it in the cairn and took photographs. Leaving the summit at 9 a. m. we arrived at timberline camp at 10:15 and found Mr. Blosser rested and ready to move with us. We ate lunch, packed up and started for main camp, following the route of the day before as far as Chocolate River. From here we cruised out another route to the Suiattle River, which did not prove as satisfactory as our original one. We arrived in camp at 7:00 p. m. and received a royal welcome.

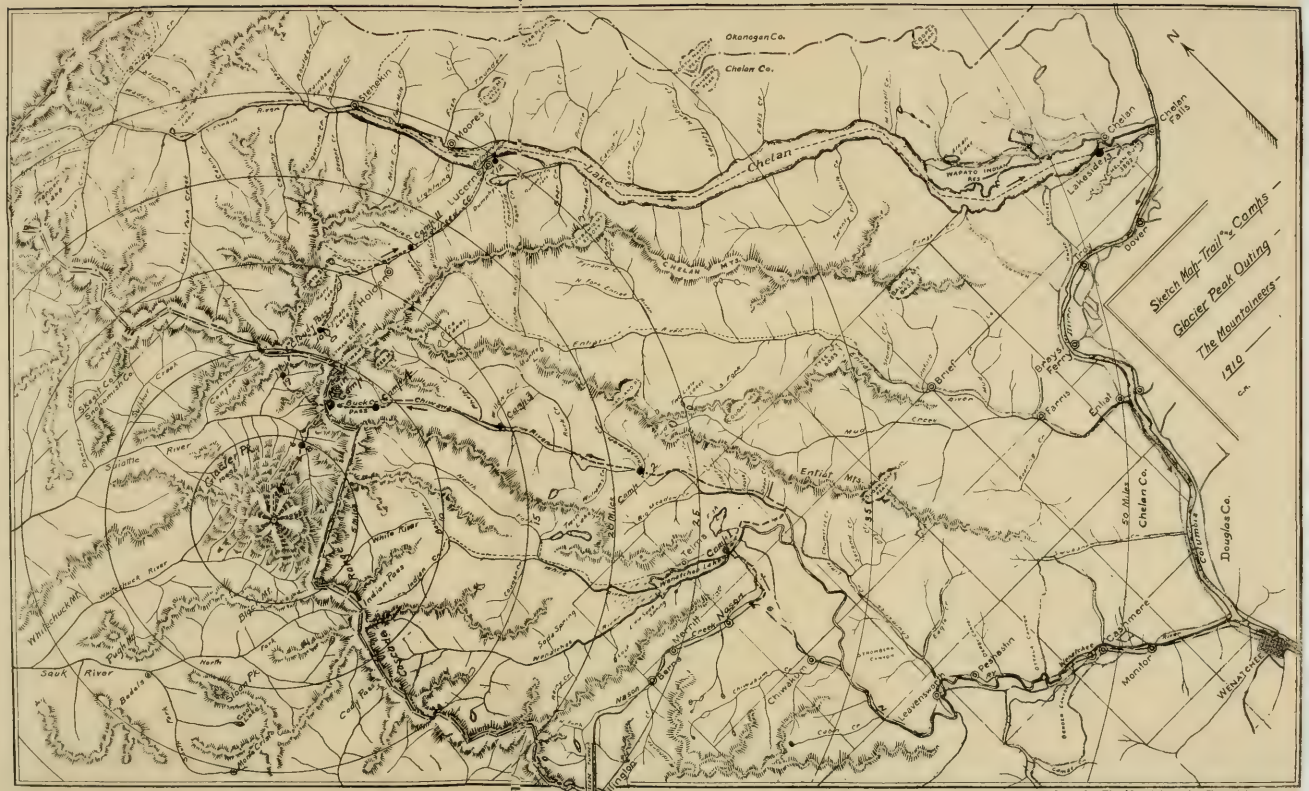
The fifth ascent was made by Dr. Hall and Dr. Dehn, of the University of Washington, August 4, 1910, following the same route as the first and second ascents recorded in this article. Upon reaching the peak that disappointed the U. S. G. S. party the clouds were so thick that nothing could be seen and they thought they had reached the summit. However, the atmosphere cleared, the mistake was discovered and the ascent completed. This peak which has deceived so many, has been named Disappointment Peak. The descent was made by way of the Cool Glacier and valley to the Suiattle and down this river to where they encountered the trail we had built from main camp.

The sixth ascent was by the Mountaineers, fifty-seven in line, who made the ascent from the temporary camp selected on the scouting expedition previously mentioned. The party left timberline camp at 4:30 a. m., August 5, 1910, arrived at the summit at 11:10 a. m., making the ascent in six hours thirty-six minutes. The return trip was made to temporary camp in two hours.

The seventh ascent was made by another party of Mountaineers consisting of Miss Lovering, Mr. C. E. Forsyth, and Earl Rice, on August 8, 1910, who followed exactly the same route as the third ascent.



Done for The Mountaineer by Chas. Albertson.



Done for The Mountaineer by Chas. Albertson.

MOUNTAINEERS' OUTING ON GLACIER PEAK.

LULIE NETTLETON.

Glacier Peak was the object of the Mountaineers' Outing of 1910. This peak, 10,436 feet in altitude, is in one of the most unfrequented regions in Washington, and as there were but two recorded ascents, it remained for the Mountaineers to delve into the unexplored fastnesses of the Cascade Mountains, view some of the most surpassingly beautiful scenery in the world, and above all open a way to the great mountain that others might follow in other years.

Thus it was that at 9 a. m., July 23rd, seventy members of the club gathered at the Great Northern station prepared to spend three delightful weeks in the open.

It was an odd company as to costume, but most amiable as to disposition, judging from the smiling faces and cordial greetings exchanged between tried comrades of many climbs and the welcomes extended to new-comers. Our distinguished president, Prof. Edmond S. Meany of the University of Washington, was there, towering above us all, bringing to the initiated visions of charming camp fire programs; L. A. Nelson, considered by many a veritable Napoleon in his ability to lead his followers to victory on summit collecting expeditions; Dr. E. F. Stevens and Dr. Eaton, the two tried physicians, were there; and last but not least, good Robert Carr, the chef par excellence, had for the fourth year cast his fortunes with us to continue his culinary miracles in the wilderness, for our benefit.

So the old-timer could settle back comfortably, fully assured of delightful camp fires to satisfy his spiritual needs, good meals to appease the never failing mountain appetite, and with Nelson to guide his footsteps through the unknown lands before him—the old-timer, I say, could settle back and forget everything but that he was going back to the trails again.

The Outing Committee had selected Buck Creek Pass as a permanent camp. This was approached by a series of four temporary camps and a walk of forty-four miles.

The Mountaineers left the train near Nason and walked six miles to Lake Wenatchee which proved a charming camping site, but our acquaintance was all too brief, for next morning we were on our way at 5:30 a. m. We followed the Wenatchee River for a short distance, then the general course of the Chewawa River, the winding road showing occasional

Photo Chas. Albertson
LAKE WENATCHEE

glimpses of beautiful river scenery; but alas, the sun beat down upon us relentlessly, the dust was very deep and the Chewawa mosquito is of a particularly vicious brand. However, when camp at Chickerman Creek was reached and bags and belongings disposed of and dinner eaten, weariness and dust were entirely forgotten.

The third camp was at Willow Creek and the fourth at Buck Creek, the latter just two and a half miles from the permanent camp.

The last two days were spent in a great forest of giant cedar and hemlock. Curtains of moss hung from trunks and branches and occasionally the dim religious light of this great forest cathedral was brightened by a little rift of sunshine filtering down through the branches.

The last two and one-half miles were steep but interesting, for leaving the large timber we found ourselves in mountain parks of alpine flowers interspersed with acres of helibore, and shrubbery placed as only Nature, the master landscape gardener, can place it.

At last, after climbing and then more climbing, we emerged into Buck Creek Pass, a high alpine park of extraordinary beauty (5,796 feet). The trees, the alpine firs and noble firs

were not so dwarfed as the trees at greater heights, but the foliage had a compactness and the twisted branches a rugged strength, which made them quite as fascinating in their way as their taller and more stately brethren of lower levels. Tiny groves of these trees were set here and there in the wide green lawns among beds of white and pink heather. Slopes about the camp covered with masses of paintbrush, phlox, lupine, anemone and potentella gave a pleasing variety in the landscape. Great crags and headlands reared their heads all about us, guarding our cozy valley right bravely. Directly north of camp was a high rock-covered hill (7,200 feet) from whose steep sides we watched the sunset glow illuminating Glacier Peak.

South of camp was a mass of rock 6,800 feet in height, whose overhanging summit won it the cognomen of Liberty

Photo Chas. Gleason

THE LINE ON A SNOWSLOPE ON THE TRYOUT TRIP TO SUNSET HILL

Cap. While we could not see Glacier Peak from the camp proper, a very short stroll gave us a good view of it.

Our camp was one of the most convenient we have ever had. The commissary occupied the center of the area beside the head waters of Buck Creek. The men's quarters were on the opposite side and further down. The women were located at the junction of this stream and another small brook.

For one whole day, it seemed the object of the Mountaineers to build camp. Cook tents were raised. For those who desired, small sleeping tents were put up; but best of all were the wonderful boudoirs constructed in the tiny groves by cutting out underbrush. In fact, in a moment certain groves were transformed into apartments fit for the most fastidious of sylvan princesses. On a tiny peninsula, a combination of tripod, bucket and fire provided hot water at any time.

Over in the western section of camp was a cozy hollow protected from the cold evening winds, where the camp fires were held. One of the most delightful features of the club outings are these camp fires. Here we used to gather each evening like fire worshippers of old, with President Meany to lead in the ceremonial. He would tell weird tales of the Indians, or stories of the early explorers who made history in our great Westland, or perhaps he would read verses from his own pen, inspired by the scenery or by some dainty mountain flower. Other gifted members spun yarns of their adventures in mountains of foreign lands and in our own great highlands; of nights on erupting volcanoes; of hair-breadth escapes amidst snow and ice and storm. Then a spice of Kipling added its flavor. Certain evenings were devoted to real frolics. Particularly memorable was the night when Miss Gotlotsofgreenbacks was joined in mock matrimony to my Lord Montague de Montmorency by the Rev. Rockandrye. The ring bearer, flower girls, bridesmaid, best man, bride's mother and bride and bridegroom were all of the masculine gender, most gloriously arrayed; and as the bride came in, to the strains of Lohengrin's Wedding March, with eyelashes dropped demurely upon bearded cheek, the whole company were very much affected. The members of the company had attired themselves as became guests at such a wedding and it passed off with great eclat.

We had music, grave and gay, and in such a company of Nature lovers is always found a great store of quotations, so the Sunday evening programs were devoted to Nature poetry and were classics in their way.

Then, a certain morning, while the dew was still on the grass we were wakened by strains of music so exquisite as to seem a part of a lovely dream. It was Largo, played by our violiniste Miss Margaret Coenen. Standing as she did

in the soft morning light, she will remain to all of us one of the sweetest memories of our journey.

Try-out trips were necessary to give members practice with the alpenstock and to gain confidence for the final climb. The topography was such as to afford ample opportunity for experience on slopes, those of grass and heather prov-

Photo P. M. McGregor
A PTARMAGIN

ing as troublesome at first as snow. One fine trip was to the crest of Sunset Hill from whose summit a magnificent panorama greeted our eyes, and our old friend Mount Baker glistened to the north of us. Another took us to the summit of Liberty Cap (6,800 feet) and two others were to the rocky ridge beyond; on two other trips we visited a rocky ridge southeast of camp where we explored unnamed peaks varying in altitude from 6,000 feet to 7,800 feet. The long tramp in hardened the muscles and the try-out trips had given confidence; thus, when, on August 3rd, the party left camp for the great ascent not one of the fifty-seven but was physically fit for a very strenuous trip.

A committee, consisting of L. A. Nelson, P. M. McGregor and Melvin Krows, had left camp July 31st to plan the route for the ascent. They returned August 1st, bringing with them J. A. Blosser, of Snohomish, Washington, whom they had found on the mountain looking for our camp. They reported a strenuous trip to timber line, but an easy ascent of the

mountain. It would be necessary to blaze a trail through very rough country, and as one of the objects of the club is to open new country by means of trails, this was one of the greatest things accomplished this summer.

The men, doctors, lawyers, professors, and men of the most sedentary occupations in town, made splendid woodsmen, and forming in a long line looked quite formidable with alpenstocks bristling, hand axes gleaming and heavy packs on their backs. The horses followed, loaded with commissary supplies, and the line of women, twenty-five in number, wearing packs containing their sleeping bags, brought up the rear.

The trail branches from the Government trail beyond Buck Creek Pass and extends southwest to the Suiattle River, crossing that and the Chocolate River, and leading on to timber line. Some of the country traversed is the most unfrequented and little known in the state. Our trail should be valuable for general use. Trail-making was slow, and when we left the Government trail there was a discouraging drop of 2,000 feet; but the forest was beautiful, the air like wine, and were we not on our way to the much-anticipated summit? So in spite of hard work, the day was a memorable one. At the Suiattle

Photo by A. H. Cruse

MOUNTAINEERS CROSSING THE SUIATTLE

River a fallen tree made a foot bridge and the party crossed, but found it necessary to leave the pack animals. We went into camp just across the river (3,800 feet altitude), the men completing their strenuous day by dividing the commissary and adding it to their already heavy packs.

The feature of this camp was the electrical storm and downpour of rain. It was a weird experience to lie on the ground some half hundred miles from civilization, with no shelter but your sleeping bag, and listen to the roll of the great thunder; to see the whole sky suddenly illuminated by the flash of lightning and the great tree tops silhouetted against its brightness. Occupants of really waterproof sleeping bags considered the electrical display most spectacular and wonderful; however, certain members whose bags failed to turn water were not so enthusiastic, and dubbed it "Camp Rain-in-the-Face."

The storm cleared in the morning, and after a brief drying-out process, we were again on our way. We followed the river a short distance, then climbed a ridge and descended to the Chocolate River. We crossed this and again climbed another ridge, and after sundry twistings and turnings we found ourselves following an old goat trail, skirting a cliff, from which we could look upon the dirty and discolored wastes of the Chocolate Glacier. Leaving this trail we went south to the camping site selected by our scouts, having blazed a trail from the Suiattle to timberline.

Here we found a splendid camping site, wonderful in scenic beauty—a rolling grassy lawn with groups of our old friend of Rainier (*pinus contorta*) dwarfed and stunted by the cold breath of the great glaciers from the slopes of our mountain which loomed white, cold and majestic before us. Lesser peaks rose in every direction. Particularly noticeable was a cluster of ten sharp pinnacles off to the south, whose needle points seemed literally to pierce the sky. As we stood watching the lights at sunset it seemed that we who were privileged to stand in this higher world were indeed blessed above all others. But the glow died and leaving the gray peaks we returned to draw lunches and prepare for the night, and as the call was to sound at 3:30 a. m., retired early.

We had found comfortable sleeping places, and had not hideous dreams of seeing the line of people starting off while you could not get your boots on intruded themselves, the night would have been pleasant. But when the morning whistle sounded we crawled out of our bags and made hasty preparations for the day. Shivering with cold and excitement, our fingers fumbled as they tried to manipulate shoe strings which, in the dark, seemed possessed of evil spirits. An urgent call

for breakfast, and we joined a weird line of people who, cup in hand, circled around the kettles where breakfast was being served.

At 4:30 the party fell into line in their assigned places and were off just as the gray light of dawn touched the peaks around us. The weather conditions seemed auspicious, the party in fine spirits and prospects favorable for the successful culmination of the outing.

The first of the ascent followed a ridge above camp first on grassy slopes, then pumice, and from there to the snow. As we reached the latter we paused to look about us and found ourselves in a transformed universe: great white clouds lay below us, projecting peaks made islands against which the ethereal surf washed softly, and between them billows of delicately tinted clouds rolled ceaselessly. As we looked up at the great peak glistening against the perfect azure "Jocund day stood tiptoe on the mountain top."

The ascent followed on snow slopes for 2,500 feet, crossing the Cool Glacier to an arete between the Chocolate and Cool Glaciers, the steepest slope being 45°; however, the route was so carefully chosen that dangerous crevasses were avoided and the only great difficulty was a rock ridge just below the summit, where the rocks proved treacherous and great care had to be exercised not to dislodge them and endanger the people below. To avoid this, ice steps were cut beside the ridge and the life line brought into service and all ascended safely. The summit was reached at 11:10 a. m., with the party in perfect condition, having thoroughly enjoyed the climb, the ascent having taken six hours and thirty-six minutes, including a stop for lunch, with a rise in altitude of 4,280 feet. Thus was accomplished the first club ascent of Glacier Peak, and for the first time women stood upon its summit.

The rocks on the summit showed signs of volcanic action, but the old crater, some quarter of a mile in diameter, is filled with snow and the rim is broken and worn, leaving irregular pinnacles of rock standing. The cairn was found on the southwestern part of the rim near the highest point. The only records found were of C. E. Rusk and A. L. Cool, of Lucerne, Washington, who made the ascent in 1906; the Mountaineers' Outing Committee, August 1, 1910, and Dr. Hall and Dr. Dehn of the University of Washington, August 4, 1910.

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HEAD OF THE SUIATTLE RIVER

Our party signed the record and, to avoid the dangerous rocks, descended over the southwest side, making a detour over a pumice ridge, and then following the route of the morning to camp. Coasting shortened the distance and in two hours the party were again in camp.

Carr made the ascent with the party, then hastened down, and when we reached camp we found a good meal awaiting us. Prof. Meany and R. J. Hagman built a cairn just above where the commissary had been located. President Meany called a meeting of the Mountaineers who were present, and it was unanimously voted to call the place "Camp Nelson," and a record was put in the cairn to that effect.

"Record: Aug. 5, 1910. The Mountaineers on August 5, 1910, after completing the ascent of Glacier Peak from their temporary camp, unanimously voted to name this camp after the leader of the party, L. A. Nelson, Camp Nelson.

"There were 57 members in the party making the ascent, leaving this camp at 4:30 a. m. and reaching the summit at 11:30, and returned to this camp at 2 p. m., having spent one half hour on the summit.

"EDMOND S. MEANY,
"President
"R. J. HAGMAN,
"Secretary Pro. Tem."

We hastily gathered our packs and made a rapid trip back to the Suiattle River where we camped for the night. Early in the morning we were again on the way back to Buck Creek Pass. At the river we found a packer with horses, and gladly yielded packs to them.

It was a line of conquering heroes who, with exultation in their hearts, now blithely trod the trail towards home. How complacently we viewed the great trail we ourselves had built, for, though all had not handled axes, every foot that had pressed the earth in place had done its share, so we walked merrily into camp to receive a glorious welcome. We found a fatted calf (commonly known as spring lamb) had been killed in our honor and appropriately decorated.

The next day after our return was Sunday and a welcome day of rest; our great purpose was accomplished and peace and content were ours. It was on this day that Robert Carr

outdistanced all of his previous culinary triumphs. He cooked such a dinner as will go down in history. First came clam chowder, then followed a ham and potato salad that would have turned Delmonico green with envy; lobster a la Newburg, maccaroni and cheese, spring lamb and mint sauce and dressing almost overwhelmed us, but the climax was reached when he brought out huckleberry cobbler, jelly patties with lemonade as a grand finale.

August 8th a party of twenty made a trip to Chiwawa Ridge (7,300 feet).

August 9th we bade farewell to our beautiful Buck Creek camp and followed a sheep trail six miles to the Big Meadows on the East Fork of the Suiattle. Here we were joined by three of our party, Miss Lovering, C. E. Forsyth and Earl Rice, who had made a separate ascent of Glacier Peak.

August 10th, at 7 a. m., we left for camp at Lyman Lake, passing through Agnes Pass, then on through a fine Government trail to Cloudy Pass where we found a record left by Dr. W. D. Lyman, a member of our party, a decade before:

"LYMAN Aug. 12, 1900.
LEMMAN Cloudy Pass.
CROWE."

We passed through North Star Park (5,000 acres), almost as beautiful as Spray Park on Mt. Rainier. We reached Lyman Lake early in the afternoon and organized a trip to Lyman Glacier which feeds Lyman Lake.

August 11th, we left Lyman Lake at 6 a. m. and walked ten miles to the junction of Railroad Creek and Ten Mile Creek. Here we lost the fishermen for many hours, but when they returned with bulging creels of cut-throat trout we forgave their absence and feasted.

The evening of August 12th the dust-browned ranks of the Mountaineers had arrived at Lake Chelan, after following the Holden Mine trail for ten miles. The dusty path was not as pleasant as the cool meadows, but it was a very happy company who feasted their eyes on the grandeur of Lake Chelan and its encircling mountains.

August 13th, the party boarded the steamer "Lady of the Lake" and cruised the entire length of the lake, the crates of fruit generously bestowed by the Chelan Commercial Club

adding greatly to our pleasure. The cruise was a pleasant change from the many days of walking, and as we rested luxuriously on the steamer's decks and feasted our eyes on the rugged grandeur of the crags and cliffs beside us, it seemed that the treasures of Nature's great picture gallery were inexhaustible.

The last camp was at Lakeside, and here the report of the committee on resolutions was read, thanking individually and collectively the members who had made the outing an unqualified success: Mr. L. A. Nelson, Mr. Melvin Krows, Dr. E. F. Stevens and Mr. P. M. McGregor, "all of whom had challenged our admiration at every turn"; Prof. Edmond S. Meany, "for conducting our campfire programs in his de lightfully felicitous and gracious manner, and for his own fund of contributions, poetic, legendary and historic." In conclusion they voiced the sentiment of all: "It seems appropriate in our last camp beneath the stars to give thanks also to Mother Nature for her gentle hospitality in tempering the winds and the storms to our comfort, and in placing at our disposal her green meadows, her flowering slopes, her sparkling waters, her towering crags, and in giving us for a playground mountain parks guarded by her sacred snow peaks." Then following the precedent of former years, we formed in a great circle around the glorious fire and sang Auld Lang Syne to the echo.

The morning call sounded at 4 a. m. of our last day, and by 7:30 a. m. all had walked four and one-half miles to Chelan Falls where we took the boat to Wenatchee, where representatives of the Commercial Club hospitably entertained us at Hotel Elman with a fruit luncheon, followed by a reception in the club rooms. Automobiles were waiting and two hours were spent in driving out to see the great orchards.

At 3:02 p. m. we boarded the Great Northern for home, arriving at 10:55 p. m.

The line of the Mountaineers making the climb of Glacier Peak was as follows:

Staff—L. A. Nelson, Melvin A. Krows, Dr. E. F. Stevens, Miss Lulie Nettleton.

A Company—P. M. McGregor, captain; Prof. E. S. Meany, Dr. Cora Smith Eaton, C. E. Forsyth, Nancy Emerson Jones,

Sumner E. Paine, Winona Bailey, Frank S. Southard, H. May Baptie, Lulu Smith.

B Company—Prof. W. D. Lyman, captain; Jessie Nettleton, Dr. W. F. Hoffman, Metta McDaniels, Dr. Margaret Baldwin, A. H. Cruse, Josephine Scholes, Earle G. Spafford, Angelica Martin, Stella Scholes, J. Fred Blake.

C Company—H. C. Belt, captain; Mrs. H. C. Belt, Charles Gleason, Gladys M. Tuttle, W. H. Gorham, Kathleen Gorham, H. H. Hastings Jr., H. K. Stream, I. M. Clark, Minnie Hutchinson, Earle C. Rice.

D Company—Dr. H. B. Hinman, captain; George M. Hinman, Mrs. H. B. Hinman, J. A. Blosser, O. L. Avey, Brittania Torrey, Bertha Reed, Grace Carr, Emil Krahnen, Everett R. Clark, Robert Carr.

E Company—Charles Albertson, captain; Mary Paschall, H. A. Fuller, Susanna Kellet, R. J. Hagman, June Oakley, A. H. Albertson, Mollie Leckenby, A. H. Denman, Harry B. Lear, rear guard.

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*LEGENDS OF THE CASCADES.

Prof. W. D. Lyman.

"The legend, which unites both the physical conformation of the Cascades and the three great snow mountains of Hood, Adams, and St. Helens, with the origin of fire, is to this effect: According to the Klickitats, there was once a father and two sons who came from the east down the Columbia to the region in which Dalles City is now located, and there the two sons quarrelled as to who should possess the land. The father, to settle the dispute, shot two arrows, one to the north and one to the west. He told one son to find the arrow to the north and the other the one to the west, and there to settle and bring up their families. The first son, going northward, over what was then a beautiful plain, became the progenitor of the Klickitat tribe, while the other son was the founder of the great Multnomah nation of the Willamette Valley. To separate the two tribes more effectively, Sahale, the Great Spirit, reared the chain of the Cascades, though without any

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great peaks, and for a long time all things went in harmony. But for convenience sake, Sahale had created the great tomanowas bridge under which the waters of the Columbia flowed, and on this bridge he had stationed a witch woman called Loowit, who was to take charge of the fire. This was the only fire in the world. As time passed on Loowit observed the deplorable condition of the Indians, destitute of fire and the conveniences which it might bring. She therefore besought Sahale to allow her to bestow fire upon the Indians. Sahale, greatly pleased by the faithfulness and benevolence of Loowit, finally granted her request. The lot of the Indians was wonderfully improved by the acquisition of fire. They began to make better lodges and clothes and had a variety of food and implements, and, in short, were marvellously benefited by the bounteous gift.

"But Sahale, in order to show his appreciation of the care with which Loowit had guarded the sacred fire, now determined to offer her any gift she might desire as a reward. Accordingly, in response to his offer, Loowit asked that she be transformed into a young and beautiful girl. This was accordingly effected, and now, as might have been expected, all the Indian chiefs fell deeply in love with the guardian of the tomanowas bridge. Loowit paid little heed to any of them, until finally there came two chiefs, one from the north called Klickitat and one from the south called Wiyeast. Loowit was uncertain which of these two she most desired, and as a result a bitter strife arose between the two. This waxed hotter and hotter, until, with their respective warriors, they entered upon a desperate war. The land was ravaged, all their new comforts were marred, and misery and wretchedness ensued. Sahale repented that he had allowed Loowit to bestow fire upon the Indians, and determined to undo all his work in so far as he could. Accordingly he broke down the tomanowas bridge, which dammed up the river with an impassable reef, and put to death Loowit, Klickitat, and Wiyeast. But, inasmuch as they had been noble and beautiful in life, he determined to give them a fitting commemoration after death. Therefore he reared over them as monuments, the great snow peaks; over Loowit, what we now call Mount St. Helens; over Wiyeast, the modern Mount Hood; and, above Klickitat, the great dome which we now call Mount Adams."

Legends of Speow.

Speow was commonly considered the owl god, although he was the grandson of Kiki, the bluejay. He had ears like a fox. His eyes were on the end of horny knobs that stuck out like those of a lobster. His mouth was furnished with tusks like those of a cougar. He wore a coat made out of the skins of mountain goats, the buttons of which were live bluejays. Take him all in all Speow was about the most of a triumph of Indian imagination of any of the various deities. He possessed wonderful magic powers. He could cut himself to pieces and then put himself together again. He could assume at will the form of any animal. Even if the animal were killed, as often happened, the life of Speow was in no manner affected, for he could come to life at will at any time.

Speow went once in company with Kiki, the bluejay, to a place where a streak of light seemed to come from a hole in the sky. For it must be noted that the world at that time was in darkness. All the magical animals were therefore looking for light. In quest of light, therefore, Speow and the bluejay climbed through the hole in the sky and reached another country, which seemed far more beautiful than the dark world from which they had come. Uncertain what kind of a reception he might meet in this new land, Speow turned himself into a beaver, and while wandering about in the swamp got caught in a trap, which had been set by the moon god, Snoqualm. Finding the beaver in the trap, Snoqualm killed it, skinned and hung it up in his tent.

But this use of Speow's assumed beaver body had no effect upon his life and he simply waited for developments. He soon saw Snoqualm coming back with the sun and the stars and with a box which contained the daylight. Speow now waited until Snoqualm had again gone out. Then, transforming himself again to his original shape, he seized the sun and the stars and the box of daylight from the place where Snoqualm had left them and in company with Kiki, who had remained with him in all his adventures, he made a rush for the hole in the sky. He passed through it so hastily that he dropped the stars, which in consequence became scattered in all directions, but with the sun and the box he reached the earth in safety. Speow's next step was to throw the sun high up in

the sky and open the box of daylight, by means of which the first day on the earth was started. Then he set out trees in all directions upon the earth.

When Snoqualm, the moon god, discovered that the sun had been stolen, he started in great fury for the hole in the sky. But losing control of himself in his passage, he dropped to the earth and was transformed by Speow into a huge pile of rocks, near the Cascade Mountains. After this Speow had entire control of the operation of the heavenly bodies. He would regularly throw the sun up into the air every morning, while at night it would always drop into the great water at the west. When this occurred Speow would shut up the box of daylight, so that no one could see his operations, and then he would go out into the water and secure the sun. Then with the sun under his arm he would journey back again to his tent and open the box which made the earth all light again and he would fling the sun up into the sky as before. This is the cause of the regular alternation of day and night. The reason that the days are so much longer in the summer than in the winter is that on account of the rain and snow of winter it takes Speow a long time to get back from the ocean with the sun, whereas during the dry and pleasant weather of the summer he can make the journey in a very short time. We may remark, paranthetically, that this seems to be philosophy back side before, but it is not much worse than the ancient systems of astronomy.

Speow was never seen by an Indian but once. This happened upon the steep bluff at the south end of Camano Island. A party of Indians going down the Sound had landed at that point to camp and to their astonishment and terror discovered standing upon the bluff a being whom they were satisfied was Speow. He was of stupendous size, being three times as tall as a fir tree and covered all over with light such as can be seen in phosphorent wood. When he found that the Indians had seen him he was very angry and kicked over a portion of the bluff so that it fell upon the Indian camp and killed all of them except the one from whom we have the account. On account of that startling catastrophe the Indians were accustomed until quite recent times to wail for the dead whenever they passed that point.

MOUNT ADAMS.

Prof. W. D. Lyman.

Each great peak has its special features. Mount Adams is peculiar in its elevation, being second only to Rainier, yet comparatively easy of ascent.

Though 12,307 feet high, its presents no special difficulties or dangers. To ascend it one has to just keep "plugging away."

It is a long, long climb, for the high-line camp cannot be made higher than about 7,500 or 7,800 feet. That leaves nearly 5,000 feet to ascend on the great day.

A second feature of Adams is the very great extent of the parks and apine woods. These meadows and glades are marvellous also for beauty, though unfortunately the great number of sheep that have grazed there have somewhat marred the turf and the margins of the lakes.

A third feature is the completeness and variety of the view from the summit.

Of course all the great peaks have extensive views, but Adams occupies such a central position that it commands a view, if the day be clear, of more regions than does any other peak. The Puget Sound Basin, with all the great peaks of Washington, is stretched out to the north, while on the south the Columbia River, both central and lower part, and the long line of Oregon peaks, Hood, Jefferson, Three Sisters, Thielson, Scott, Diamond, and McLoughlin, are revealed. Also the vast Blue Mountain region eastward.

The usual approach to Adams by the Columbia River, either steamboat or rail, and then from White Salmon up the valley of that stream to Trout Lake and the foot of the mountain, is of great beauty and interest.

If the party should go, as has been suggested, by way of Mount St. Helens with a view to ascending that peak also, the route would be wilder and newer, more of a genuine exploration, and might lead through the famous Indian burying and hunting ground, known as Sequash. The author is not familiar with the trails by that route, but they can doubtless

MT. ADAMS

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be followed. The great Klickitat trail from the Yakima and Klickitat valleys into the lower Columbia by way of Lewis River followed that course and it is said that the trail is centuries old. There are places over the southern flanks of Adams where that trail is worn several feet in depth through the soft volcanic soil. If the aboriginal generations that have trodden that deep-worn trail could only rise and speak, what a resurrection it would be.

Another unique feature of Adams is the great river of lava on the south side, five hundred yards or more in width, a tinted, contorted stream of stiffened fire.

The glacial system of Adams is vast and interesting, though not equal to that of Rainier, with one exception, and that exception is the Klickitat Glacier on the east side, the crowning glory of Adams.

Imagine a well of purple, red, and saffron cliffs, the old volcanic vents, rising almost perpendicularly nearly a mile, and across its mighty turrets the glistening points of ice and on its crown the cornices of snow.

It is one of the experiences of a lifetime to gaze upward at that stupendous wall, and then, having climbed to the summit to crawl to the verge of that frightful precipice and peer over down that mile of nearly vertical descent. There is perhaps no scene of the kind so impressive, even overwhelming, in all our mountains, as the great Klickitat Glacier of Mount Adams.

At the foot of Adams is a region of caves, some filled with ice, stalactites and stalagmites, strange and beautiful.

All in all, Nature was in an exuberant mood when she wrought the wonders of this mighty pile, and when the Mountaineers make this their outing for next summer they cannot fail to find an abundance of the same rich and indescribable charm which we always find in following the foot prints of the Mighty Mother.

* * *

THE SIERRA CLUB OUTING TO THE KINGS RIVER CANYON.

By Marion Randall Parsons.

At half past two on the morning of July first our special train drew up at Lemon Cove, a fruit growing community on the eastern border of the San Joaquin Valley. Out of the Pullmans we tumbled, but half awake and only hastily shaken into the unfamiliar camp garb, some of us still fumbling with neckties and belt fastenings as we ran. We stumbled through the darkness to store our suitcases in the baggage room, found places in the waiting stages, and then we were off and the outing had fairly begun.

The drive through the valley by moonlight was delightful. Dawn found us climbing among parched brown hills where oaks and sycamores were sparsely scattered and where the few streams ran sluggish and warm. Higher and higher we climbed, among hot, chaparral-clad hills till towards noon the pines began to appear. We stopped for lunch at Juanita Ranch, a well-kept farmstead lying in broad meadows where some superb oaks grew; and then it was forward again, still climbing. Now we were in the true pine belt of the Sierra. Giant yellow and sugar pines were mingled with silver firs and libocedrus, and underneath grew a thick carpet of bear clover whose pungent odor, mingled with the aromatic breath of the sun-heated pines, brought many a former forest day vividly to mind. Here a few belated flowers were blooming—pink gilias, godetia, prettily called "Farewell to Spring," and long-stemmed, delicate Mariposa tulips growing in wonderful profusion in the grassy open spaces.

Then as the afternoon waned we entered the sequoia forest. Walking ahead of the toiling stages and their accompanying cloud of dust, one could sense the wonderful silence and peace and serene calm of these ancient trees, oldest of living things on our globe, that were standing here in the full glory of their prime when Pan was still worshipped on earth. The afternoon winds that stir the grasses and flowers to sudden merry

Photo Edward T. Parsons

A GIANT SEQUOIA

confusion pass unnoticed by their majestic crowns; fires that exterminate the lesser forests leave the sequoias unharmed. The marks of many a conflict with this dread destroyer scar their massive boles, it is true; but so seldom does forest fire or lightning fell one of these noble trees, that we, whose lives are of such brief span, thinking of the cycles that have passed them by may almost class them among the immortals.

Just beyond the sequoia forest, at an altitude of about 7,000 feet, lay Quail Flat, the camp for the night. There was little at first glance to recommend it beyond the solemn welcome of Charley Tuck, the incomparable Chinaman who has been our chef on every outing, and the ingratiating grins of his five heathen assistants, tenderfeet all, for Charley Tuck brooks no rivals and never engages a popular assistant the second time. Dunnage bags were quickly unpacked, dinner was despatched, and soon we were ready for the first night under the stars.

Tramping began the next day. A rise of a few hundred feet took us out of the zone of the pines into a red fir forest, then through a long stretch of tamarack-pines where a stream ran brightly between grassy banks, till the trail plunged down hill into the canyon of Boulder Creek. Here many of us lunched and then it was upward again, among meadows where larkspur and daisies were blooming, to Horse Corral Meadow where a beautiful camp was made among the Jeffrey pines.

A short hour's walk in the morning brought us to the brink of the Kings River Canyon, one of the huge, glacier-carved canyons of the Sierra, of structure similar to that of the Yosemite Valley, Hetch Hetchy, or the Kern. Some of us climbed the few hundred feet to Lookout Point, gaining thereby a splendid view of the great mountains to the north and east that we were later to climb. The rest of us hastened down the 3,000-foot drop to the canyon floor. Every now and then, between the spreading arms of the sugar pines, we glimpsed the distant ranges of snowy mountains. Later, when the growing canyon walls shut out the far horizon, we looked down on the valley floor where the pigmy trees dotted the meadows in tiny splotches of dark green and the river wound among them a narrow ribbon of silver. Down to the river at last—how our knees did ache! A long descent is worse than a climb when muscles are soft with the winter's idling. The

swift, strong river looked mild mannered enough to those of us who remembered it in surging flood four years ago. The water was indeed uncommonly low and the season very far advanced. But the fishermen smiled an anticipatory smile and were happy.

Five miles above the point where the trail enters the canyon permanent camp was established under the Grand Sentinel in a grove of libocedrus and yellow and sugar pines. Here four days passed uneventfully but happily. Fishing parties rambled up stream to Mist Falls or down stream to Roaring River where, in the shadow of cliffs half a mile high, they lunched most luxuriously on rainbow trout.

But to most of the one hundred and seventy people there assembled permanent camp meant little more than a headquarters, where, between side trips, clean clothing might occasionally be procured, or boots be cobbled—a place of fabulous luxury where bread and meat were consumed daily and where the construction of one's personal camp was a serious matter involving the collection of pine needles or fir boughs instead of that hasty ceremony of casting down one's sleeping bag on the least precipitous, least bouldery spot in sight so characteristic of the more nomadic life of the side trips.

So, only waiting for the Los Angeles division to reach camp, nearly seven-eighths of the entire party set forth for a week's sojourn in the high country in the vicinity of Bullfrog Lake.

About two miles above the Grand Sentinel the Kings River branches. To the north lies Paradise Valley and the upper waters of the Kings, while eastward lies Bubbs Creek Canyon and the main traveled trail to Bullfrog and Kearsarge Pass, one of the oldest trails in the region. Half way up Bubbs Canyon, at the base of the massive pile of sculptured granite known as the West Vidette, the stream again forks. The right branch, East Creek, leads to the base of Mount Brewer; our trail still followed Bubbs Creek eastward. Passing the northern flank of the West Vidette and that playground for the water ouzel, Bubbs Falls, we came to Vidette Meadows where we left the main trail to establish camp half a mile up stream in an open forest between the Kearsarge Pinnacles and the pyramid-like East Vidette.

Plate XIV.

Photo Marion Randall Parsons

EAST VIDETTE FROM BULLFROG LAKE

Plate XV

Photo Marion Randall Parsons

MT. STANDFORD AND JUNCTION PEAK, SHOWING THE PASS

Timberline in the southern Sierra reaches an altitude of 11,000 feet and at 10,000 feet camping is comfortable enough though the nights are apt to be frosty. As no tents need be carried the problem of shifting camp is much more easily solved than in the rainier northern mountains, and an hour's work suffices to make camp habitable. The transportation question, long a source of infinite annoyance and discomfort, has at last been settled for us by the good services of a most competent head packer who has brought his train of sixty animals and his corps of men to the highest degree of efficiency. This prompt service of the packtrain, while adding much to the comfort of us Sierrans, takes something from that picturesque element of uncertainty that lent so much charm to the after recollections of our early outings.

However, this first night at the Vidette camp held an amusing flavor of those early times, pleasant to remember now. The packtrain had had a hard journey—heavily laden with provisions for a week and with twenty pounds per head of personal dunnage for a party of one hundred and fifty, it had traveled that day sixteen uphill miles over a very rough trail gaining more than 5,000 feet in altitude. One division, that including in its packs the commissary kettles, was somewhat behind the rest. The stoves were set up, fires lighted in them, provisions set forth ready for cooking, but still no kettles were forthcoming. The imperturbable "Fryer" Tuck went calmly about his preparations, directed the broiling of the plentiful supply of trout that had been brought in, and displayed no anxiety about the ultimate outcome. Not so the hungry Sierrans, notably the tenderfeet, who had no data concerning the infallibility of the packtrain and who were visibly perturbed. One by one, with specious offers of assistance, they came behind the dead line dividing kitchen from dining room only to be ignominiously expelled. Longingly they lingered near the bread slicers and the butterers thereof; greedily they watched the sizzling trout. At last they secured plate and cup and sat down in the immediate vicinity of the kitchen to await developments. Meanwhile the delayed division had unostentatiously come in. The kettles were filled and set on the stoves and before the hungriest tenderfoot had dreamed of expecting it, hot soup, rice and tomatoes were ready to be served. Then indeed, not with their wonted dignity, not like real gentle-

folk did they await the serving. Scrambling to their feet and emitting loud cries of joy, they ran for places in line and gloated visibly over their filled plates.

The most notable event of our stay at Vidette Camp was the attempt to get pack animals and fish cans over the Kings-Kern Divide by means of a pass between Junction Peak and Mount Stanford. A group of knapsackers planned to cross this pass afoot, climb Mount Whitney (14,501 ft.) and return by way of Harrison Pass and Mount Brewer. The plan was to take along a couple of pack animals and try to transplant some of the famous golden trout from Whitney Creek to the Kings watershed. Unfortunately the attempt had to be abandoned as the southern side of the pass was found to be too difficult. So the animals were sent back and the knapsackers pursued their way alone.

The rest of us found plenty to occupy our attention for a week. Ascents of University Peak (13,588 ft.), Rixford (12,856), Gould (13,001), Keith (13,990) and Stanford (13,983), trips to the Kearsarge Pass, to Charlotte and Bullfrog Lakes, to Center Basin and the beautiful group of lakes lying between the West and East Videttes were made by many parties, and the latter peak was conquered by two young men, who, finding no records on its summit, could claim the honor of a first ascent.

On breaking camp at Vidette Meadows a party of about fifty journeyed up East Creek and made the ascent of Mount Brewer (13,577 ft.), a mountain commanding one of the finest views in the Sierra as it stands somewhat away from the main summit crest. Several other parties, about twenty people in all, knapsacked across country, over Glenn Pass, to Rae Lake, making camp there for several days before joining their companions in Paradise Valley.

The main party returned to the Sentinel camp, remained but a day, and then started out again, up the Kings to its junction with Woods Creek in Paradise Valley. Here a camp was established for another week. Goat Mountain was climbed (12,203 ft.) and Arrow Peak (12,927) and then calamity overtook us, for it rained, not the brief afternoon thunder shower that one expects to encounter once at least during the outing, but an outrageous, unheard of downpour that lasted from eleven in the morning until nine at night. Motley, indeed was

Photo Edward T. Parsons

BULLFROG LAKE FROM THE CHARLOTTE TRAIL, KEARSARGE PASS
(extreme left), UNIVERSITY PEAK, KEARSARGE PINNACLES, EAST VIDETTE, AND WEST VIDETTE

Photo Edward T. Parsons

FROM BASE OF FINN DOME EASTWARD OVER RAE LAKE, BLACK MOUNTAIN (left), GOULD, GLENN PASS (extreme right)

the wear that day for with a twenty pound limit on baggage ingenuity was hard pressed to find the wherewithal to keep dry. Some improvised hooded capes out of their dunnage bags; some folded newspaper shawls about their shoulders; others made umbrellas of rather restricted area but unlimited water-shedding capacity (down the back of the neck) out of tin basins and baking pans; and one fair lady who was not altogether enamoured of camp life made an anomalous picture of misery wrapped in an oilsilk bed-cover of vivid and giddy yellow. But the star, perhaps, was the staid Englishman who wore his collapsible bucket on his head and shrouded his shoulders in a capacious bath towel.

It was uncomfortable of course, but not too much so for us to make merry over it nor to enjoy its picturesqueness—the dozen campfires glowing among the trees, each one of which was the center of a lighthearted, laughing group of mountaineers, improvising verses and songs fitted for the occasion. There was a supper party even, where barbecued ham was consumed between song and story. And then the stars shone out and we could go to rest.

After a day's delay, during which the weather fulfilled all expectations and obligingly cleared, the majority of the party started up Woods Creek for Rae Lake.

No spot in all the Sierra can surpass Rae Lake. It lies close under a circle of high, beautfully sculptured, wonderfully colored mountains, a long, narrow lake, divided midway by a promontory where twisted, storm-beaten pines grow among the rocks. Northward the mountain walls stand apart revealing the canyon of Woods Creek and the distant peaks beyond, all watched over by that rugged guardian of the lake, Fin Dome. Between the tiny islands that dot the irridescent surface of the water sparkling ripples play, shivering the images of the painted mountains and chasing the shadows of the passing clouds, those glorious troops of luminous cumuli that daily journey across the paths of the sky.

Another charm, too, Rae Lake boasts—its trout are of phenomenal size and abundance, and nowhere else is there such a paradise for fishermen. Two beautiful days and two moonlight nights quickly passed, days spent in fishing along the deeply indented lake shore and in exploring the nearby Sixty Lake Basin. Three men climbed Fin Dome, presumably a first

ascent as no records exist of a previous attempt. Then we started back again, down past the domes and spires of the Woods Creek Canyon, past its meadows, shoulder high with columbine, monkshood and tiger lilies, through Paradise Valley and past Mist Falls to the Sentinel camp again.

So much more could be told of those eventful four weeks—how some of us made a sixty-mile detour from the Paradise camp across Pinchot Pass and the headwaters of the South Fork of the Kings River, over Ruskin Pass and down Cartridge Creek to the Middle Fork of the Kings and back by way of Granite Pass; how some climbed Split Mountain, southernmost peak of the Palisade group; how others visited Tehipite Valley and returned by Happy Gap; how others still explored Roaring River Basin and Deadman Canyon. What wonderful campfire entertainments we had too, the prizefight and the circus, the most ingenious shows that were ever conceived in the mind of Sierran or costumed from his inexhaustible dunnage bag. All too soon it was over and we were leaving the alpine meadows and valleys behind us and returning to the forest country, on the homeward trail.

Taken as a whole this tenth outing was perhaps the most successful the Sierra Club has ever held. The details of management were less exacting than on last summer's outing where only once during our four week's circuit of the Yosemite National Park did we spend more than five nights in the same spot, the main camp being shifted fourteen times. Never before, certainly, have we traversed so great an area of country—from Quail Flat to Kearsarge Pass, from the Palisades to Mount Whitney—and this is the more noteworthy in that this region is the most rugged in all California, much of it as yet untraversed by trails, while many of those trails marked on the government maps are old sheep routes for years fallen into disuse and now hardly to be traced. But to many of us untrodden paths are the most alluring and the days spent in the wild, lonely regions in the very heart of the Sierra are the golden ones that we best love to recall.

* * *

MAPPING MOUNT RAINIER NATIONAL PARK.

F. E. Matthes.

[The mapping is being conducted by F. E. Matthes, who has made a specialty of high-mountain surveying in various parts of the West for the last twelve years. He finds Mount Rainier by all odds the most interesting and also the most difficult problem he has attempted.

A committee appointed by the Mountaineers is now in consultation with Mr. Matthes as to the naming of the various peaks, glaciers, parks and other points of interest on the mountain. This committee will spend three years threshing out the name question, seeking out the source of the original names and preparing a complete report as to each name.

Recommendations will then be made to the national geographical board. The committee has been chosen from among members of the Mountaineers and outsiders whose knowledge of the mountain and position enables them to act as competent judges.

The members of the committee are: Prof. E. S. Meany, University of Washington; J. B. Flett, Asahel Curtis, E. S. Ingraham and L. A. Nelson. Others assisting are John H. Williams, P. B. Van Trump and Eugene Ricksecker.]

The party of surveyors which the United States geological survey sent out last summer to map the Mount Rainier National Park, has just concluded its labors for the season, and has returned from the mountain. Continued fog and rain rendered further stay unprofitable. The map is to be something more than a superficial reconnaissance. It is intended to become the basis for all future engineering projects in the park, and is consequently elaborate and refined in character. It will rank with the new detail maps which the geological survey has recently published of the Grand Canyon of the Colorado, the Yosemite Valley, Crater Lake and several other national parks.

Such a map requires a very large number of locations and elevations. Many thousands of points were determined this season, although only a small portion of the park on the south side of the mountain was covered.

The work was executed almost wholly by means of the "plane table" method. That is to say, the map was made on the ground, being carried on a drafting board mounted on a

tripod. A system of triangulation executed with theodolites constitutes the basis of the entire survey, while lines of precise levels connecting with sea level furnish the basis for the elevations.

Last summer a line of levels was run into the park over the new government road via Ashford and carried up to McClure rock, which is one of the important points of the triangulation system. From it vertical angles were taken with great care to the peaks of the Tatoosh range and many other important eminences and their elevations computed trigonomerically. The exact altitude of Mount Rainier itself is ultimately to be determined in a similar manner, only, in view of its importance, the measurements are to be taken with high-power instruments and the most approved triangulation methods. It is desired to make the determination of the altitude of the mountain beyond question as regards accuracy, and considerable extra work has been undertaken merely for the sake of accomplishing this end.

Unfortunately a heavy snow fall early in October covered up the tall stone cairn which was built on the rim of the south crater for a triangulation signal, and thus this work had to be abandoned for the season without the height of the mountain being definitely worked out. It is hoped, however, that the final figure will be announced early next summer when the work will have been resumed.

The detailed mapping of a huge glacier-covered peak like Rainier calls for no little mountain climbing. The surveyors made daily climbs with their instruments on their backs, that is to say, with a fragile load, that a single misstep might ruin.

The peaks of the Tatoosh range were climbed repeatedly and treated as so many hills. Eagle peak was climbed three days in succession and Pinnacle peak four times, the work on those points being so extensive as to require several long days for its completion.

Mount Rainier itself was ascended twice, the first time in order to build the cairn referred to, and the second time in order to take the necessary measurements. In both cases the party encountered violent gales on the summit; on the second occasion the wind literally swept them off their feet at times, and the work had to be executed from the lee of the cairn.

PACK TRAIN CROSSING CLOUDY PASS

Photo by A. H. Cruse

The sunrise studs them thick with pearls,
With crimson links each fold;
The sunset every banner furls
Yet leaves their crowns of gold;
Then ghostly gray, they vigil keep
While tired man dares fall asleep
Among the great white hills of God.

But yet, ye hills, I'd speak to thee,
Across the years I'd call;
My dust with thine may seek the sea,
My days be few and small,
My name be lost as ages roll
But I—a man—I have a soul,
O listen, great white hills of God.

NOTE.—Written on Annual Outing of The Mountaineers at the base of Mount Rainier and read at Main Camp Fire July 24, 1909, by Rev. Francis J. Van Horn.

MOUNT ST. HELENS.

C. E. Forsyth.

St. Helens, the youngest of the volcanic peaks of the Cascade Range, is thirty miles west and out of line with the older peaks, thus being more susceptible to climatic change. It stands out clear, clean, alone, not dwarfed by other mountains or hills nearly its height in close proximity—an oval dome in shape.

When its winter coat of snow is on, filling its crevasse system, covering its buttes and even the rock chimneys around its crater top, then and not till then is it a perfect white with no mark or foul blot upon its shield. Then with its 10,000 feet, it is a wonder to look upon and should be seen to be appreciated. Some scenes in the hill system at times are not made for words, are beyond description. One is simply lost in wonder.

Routs and Trails Leading to It.

From Castle Rock, Washington, there is a direct wagon and automobile road forty-eight miles distant to the now used camping grounds on the south side of Spirit Lake, and north side of the mountain. Three and one-half miles south to the base of the mountain, where the climbers' troubles begin, trails are cut to the open land near the base.

From Woodland, Washington, on the Northern Pacific Railroad, going forty-five miles north by wagon road and pack trail, one may reach the south side of the mountain.

It may also be reached from Vancouver, going northwest thirty miles by railroad and then by wagon and packs to the mountain.

One knowing the location of the country can go through to the mountain, not following the known trails, but at the expense of hardships and privation.

Climbing Routes Used.

If climbing from the north side one will notice a long ridge, called the lizzard from its twisting course, from which two-thirds of the way up over a small snow field is a bunch of rock shaped like an immense boot with the toe pointing west and the top of the boot straight up the mountain. Beware of this rock boot; it is labeled dangerous. Here is located a just comfortable, modern, right up-to-date, orthodox-warm place, with steam heat if desired. Most climbers take a look at it going up. Ice will be found from 600 feet to the top on the north side. It is a steep, sharp climb but the shortest route to the summit.

On the northeast corner one may make his way over Black Butte, thence by winding around among the crevasses of the East Side Glacier, going north around the longest crevasse on the mountain, nearly three-fourths of a mile in length and, in 1908, six feet wide at the top, thence to the summit. (This route was impossible this year on account of the crevasse system.)

The east side climb may be made by going south to the skyline ridge east from the top, thence up Eastside Glacier, at all times avoiding the moving rock slide on the southeast corner north of Lewis River Glacier, as it is dangerous. Also, if it is thawing or a heavy wind is blowing, avoid all concave chan-

nels as the rocks from the top are disintegrating and roll down rather carelessly at times.

The south side is a long, gradual slope and the kindergarten side for a climb.

From the west or northwest no known one has climbed as yet.

Attractions.

A trip to St. Helens furnishes a pleasing outing because of the good roads leading to it and because the mountain itself is easily accessible from permanent camp. Spirit Lake, a body of crystal water covering 1,800 acres, has been sounded to a depth of 1,300 feet and no bottom found. There is any amount of trout in the lake from one to three feet in length. One in a boat can see them by the hundreds, but they are contrary and bite only when the spirit moves them. It is a trolling proposition except when the wind ruffles the water just right, then the expert fly fisher makes a killing.

There is the best of drinking water and plenty of fuel.

Around the base of the mountain is a dim trail. The forest rangers are cutting a trail to Mount Adams which is distant thirty-three miles air line, but will be fifty miles by trail.

Lava Caves.

Lying some six miles from the mountain base on the southeast corner are the lava caves in the volcanic rock. Lava, being a bad conductor of heat, hardened on the outside while the inside being still molten, flowed on and out thus forming underground channels. These have been explored for one and a half miles without reaching the upper end. It winds downward in easy curves, river like and in a line direct from the mountain, thus showing whence it came. The lower end is filled with lava. At places along its course are openings where the rock roof has fallen in. A current of air circulates down this flume. The roof is nearly fifteen feet below the surface.

The bed of this volcanic stream is twenty feet wide, nearly level, and littered with the debris of the last flow. The banks of the channel are well defined, about six feet high, straight up with parallel lines showing the different flows. The slope is about a three per cent grade, with a roof twenty feet high, semi-circular in shape with a brown glazed appearance like

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MT. ST. HELENS AND SPIRIT LAKE

dark stoneware, covered with little stalactites. In places the roof has fallen in and the danger of falling rock from the roof is the only one in exploring the tunnel.

This cave was first discovered by Ole Peterson while hunting in 1895.

Wells.

On the south are round caves, some in a slanting direction gradually tapering to a point which, like the well holes, were formed by the molten lava flowing around fallen or standing trees that were destroyed by heat or decay. The perfect form of the bark in many of the well holes fixes the manner of their formation beyond doubt. Evidently, St. Helens had bad spells long after its first formation.

Age.

Its age is shown by the botanical and geological evidences in sight. Its flora is scant, in fact, mere nothing; yet as time goes on it will be different. The soil is yet to be formed, being now only coarse decomposed pumice and rock formation, not yet dense enough to hold moisture. Trees growing near the 4,000 foot elevation are mere shrubs, fifty years' time being necessary for one to reach a three and a half inch diameter at the base.

Away from the base of the mountain at an elevation of 3,000 to 5,000 feet, the yellow cedar is found in common with the tree formation of Western Washington, with the exception of the white bark pine.

This year the huckleberry crop was prodigious, some of them equal in size to small cherries and the woods blue and black with them.

Return Routes.

One could cross or go around Spirit Lake going north, thence on a trail now open over Mary's Peak divide; thence down Green River to the Soda Springs; thence to mouth of said river where the trail connects with the road to Castle Rock. Or one could go out via South Toutle River, due west from the mountain, connecting with the ingoing road forty miles from the mountain or via Vancouver to Portland and thence home.

St. Helens as Seen from the Top and Otherwise, September 24, 1910.

Through the invitation of W. A. Williams of Tower, Wash., who has teams, wagons, etc., galore, and with two of the "Kelly Clan" of Tacoma, we left Castle Rock for the mountain September 22 at 8 a. m. and were in camp at Spirit Lake at 1 p. m. on the 23rd.

Mr. Geo. Williams, a forest ranger, young, strong and knowing the mountain like an open book, volunteered to make the climb with me just to show the way. Say! I was glad he did, for I doubt my having made it alone. In fact both of us met with the surprise of our lives in mountain work ere the day was over.

I had not seen the mountain at close range for two years and I had not known the location and general contour would have needed an introduction. The erosive wear and tear of the glaciers is appalling. It looks like a fleeting, changing world, abiding not. Evidently, there is a new shuffle of the cards for St. Helens. More hot places are now known than ever reported before. The two steam jets were still playing like the exhaust of a small engine. You find the hot places in the yellow-colored rock. We found two new ones on the leg of the boot.

The ice on the north side was three-fourths of a mile higher up than commonly, with the Eastside Glacier like unto an immense coarse spider web, broken, torn and awry, each separate thread representing a crevasse in depth from a point to eighty feet, and any width one wants. Last spring an avalanche of snow starting near the top cut off and down ten acres of timber one mile from the base of the mountain, passing over the old snow at a height of eight to twelve feet and cutting off trees eighteen inches in diameter like pipe stems. A mass of ice and debris now blocks one of the trails for a short distance.

The Climb.

We left camp at Spirit Lake at 7:30 a. m. for the north side. There was a dense fog at the lake and at the base of the mountain. Going northwest over a route new to me, being higher up the mountain, we hit the lizzard at two-thirds of its length up. Then we were above the clouds, they being

just a fleecy mass below us, lying so quiet that it seemed that the wind above held them down. Only the higher peaks were visible.

The rocks began rolling and we thought a goat-herd was above and that we might see them. The wind, biting cold and blowing a gale, made climbing over the pumice and loose rock slow and tedious. Before this, had found snow, but on this trip, both up and down, took not a step except on ice or rock.

We tried going up the ice along the boot leg but the wind blew the rocks loose to such an extent that we were forced west to the top of the ridge on the leg of the boot. We staid with the ridge till it met the glare ice six hundred feet from the top. Now our troubles were on. I was wearing the calks and alpinestock, both dull, and the same clothing as on the Chelan trip and had about twenty-five pounds of junk in the coat pockets (always enough to set up camp for one night), so much that it was balloon shaped and so could not button it. The wind now would discount a Kansas cyclone. While cutting steps for the first 300 feet, it would pick up the coat from the back and flop it over my head, easily. (Have forgotten the list of adjectives used).

At the end of the first 300 feet, we ducked behind a small cliff and tried to warm up. 'Twas no use; the wind found us, so we started on and up, now and then cutting a step. At 1:20 p. m. we dropped over the chimney rock into the crater, chilled through and through, with the four fingers of my right hand frozen through heavy gloves. We warmed up some and then went over to the box, Williams fishing it out from under the rocks. We went down under the knoll. He wrote legibly, I didn't.

Climbing this time was like getting into trouble, easy going in but hard to get out. Some one had said that no person could climb from Black Butte this year so, kid like, we looked it up, going down the east side. It was true. Nothing but a flying machine could pass the crevasses surrounding it on three sides. 'Twas the worst system ever caught in. On the east side, the ice was concave in places which helped some from just common glare ice. Farther down, for a time it looked as though we were stuck and would fail to get down, but by crossing sundry narrow crevasses at favorable places, we were clear of them and far below Black Butte.

We reached camp at 6:15 p. m. and personally, I was nearly all in. We had been without water till late in the afternoon when we broke ice in the crevasses to get it. Even Lewis River was cut off from the mountain flow which was frozen solid.

Supper was awaiting us. Good commissary with huckleberry sauce goes far towards making one forget the toil of the day.

LOCAL OUTINGS OF THE MOUNTAINEERS.

H. A. Fuller.

The surroundings of Seattle are such as to make a variety of trips easily arranged. Beautiful woods are in every direction and it is a delight to follow the trails through them. Puget Sound and the nearby lakes are a source of much variety in planning these outings as they give various routes to any point selected as the destination of a trip. From September to June local walks are given on Sunday every two weeks. Starting from 8:00 to 10:00 a. m., the return is ordinarily made by 8:00 p. m.

By car or boat we leave the city and after some walking arrive at the place selected in advance for having lunch. The parties are always in charge of a leader who will have one or more assistants as may be required. The leader arranges to serve coffee or erbswurst soup to all and each one takes a lunch, cup and spoon. Some gather flowers, others use their cameras and the more strenuous generally have a soft base ball along for amusement. Depending on the length of the afternoon walk, the start after lunch is immediate or delayed.

Some of the walks have other attractions, as those for rhododendrons, violets, or strawberries or to the beach at the camp of one of our members. The past year a series of biweekly Saturday afternoon walks to alternate with the Sunday walks was quite successful, as it gave opportunity to many to take short walks and also accommodated those who could not go on Sunday.

The year 1910 was peculiar as regards several holidays coming on Mondays so that it was very convenient to arrange

Photo J. W. Wilson

VIEW NEAR SCENIC HOT SPRINGS. WINTER OUTING JANUARY, 1910

for special outings covering three days. Leaving on either Saturday morning or afternoon the return need not be made until Monday evening. Owing to the fact that there is little snowfall in the city, a popular trip during the winter months is to the Cascade Mountains. A party of fifty-four members under the direction of the Local Walk Committee left Seattle, December 31, on the 5:15 Great Northern train.

This affair was in the nature of a week-end house party but perhaps it should more properly be called a "Year End" function. To be sure the country house visited was the Scenic Hot Springs Hotel, but mine host Mr. P. V. Prosser contributed as much to our enjoyment as though he were entertaining invited guests.

On Saturday morning the majority of the company donned mountain costume and were off for a tramp in the woods —and such woods—truly, the home of the Frost King himself! Clean, powdery snow lay on the ground; delicate lacey frost showed upon the ferns and grasses; the great boughs of cedar and fir were heavy with snow.

Our route led east from the hotel following in a general way the bed of the stream. We ascended about a thousand feet to where, from a vantage point, we looked at the great hills around us and, through the pass, to the higher hills beyond.

Back at the hotel, hot baths, dry clothing and a brief siesta prepared us to enjoy dinner and the dancing afterwards. Sunday at 9:30, a start was made and we were off for the famous Cascade Tunnel. At the town of Wellington we paused for lunch, then a short walk brought us to the tunnel. Our stop was necessarily brief, so we retraced our steps to where we had begun our walk on the track.

We did not descend by our morning's trail but followed the track for another hour, then rounding a sudden curve we saw spread out before us a wonderful panorama of white hills near and purple ones in the distance.

By five o'clock we were again at the hotel; all too soon, clothes were changed, bags packed, dinner eaten, and a Great Northern train was bearing us home from one of the most delightful outings the Mountaineers have ever enjoyed.

The trip taken May 28, 29 and 30 (Memorial Day), was to Mount Si and Snoqualmie Falls. Some of the party left Leschi Park early Saturday afternoon going by steamer to Newport on the east shore of Lake Washington and walking

from there to Issaquah, about nine miles. Later in the afternoon the balance of the party left by Northern Pacific train and at Issaquah were joined by the first party who boarded the train to continue on to Snoqualmie.

A hard rain had started about the middle of the afternoon and upon our arrival at Snoqualmie at 9:00 p. m. we were very glad to learn that the advance detail had secured vacant houses so that we were assured of dry places in which to sleep that night. Sunday morning the drifting clouds, not only around the mountain but in every direction, caused us to hesitate about starting to make the ascent, but breakfast over, the order was given to be ready to start at 7:00 a. m.

Photo by H. A. Fuller
VIEW FROM THE SLOPE OF MT. SI.
SNOQUALMIE RIVER

It turned out to be a most desirable day for the climb as the clouds modified the sunshine for much of the ascent which added to our comfort. Following the Snoqualmie River for three miles we are soon close to the base of Mount Si. On the side of our approach the vertical rock face rises from a large expanse of talus. A few rock slides indicate the steepness which we must surmount. Owing to the absence of trees on the mountain we find it hard to judge the height and to realize that the summit of 4,500 feet elevation is about 4,000 feet above us. A cold clear brook is crossed and we halt to

take a drink and fill canteens as there is no water farther up except at an abandoned prospect hole that we shall soon pass.

The brown and red rocks and the green moss and other plants make the rock wall before and above us appear as if painted. We look along the cliff and the opening is noted through which we shall follow a rock-slide in our climb to the summit. Leaving extra wraps near a large tree we pass through a belt of timber and up a rocky slope and finally emerge from the woods where we can look back above the trees at the valley we have recently left. For some distance we scramble over huge boulders and fallen trees, and at last reach the portal of the canyon from which issues the rock-slide. Lookng backward now, he have a fine view of the plain of the valley and note the silver threads that are the South, Middle and North Forks of the Snoqualmie River. The town of North Bend is nearby while Snoqualmie is farther away, almost hidden by trees. Slowly we make our way up along the edge of, or over the loose rocks of the rock-slide.

Each one must be careful not to start rocks, not alone for their own safety but so as not to endanger those behind them in the line. We proceed slowly with frequent brief rests until the noon hour, when a stop is made for lunch at a place where we are able to seat ourselves on the sloping floor of the canyon; on either side the smooth rock walls rise for a hundred feet or more. Lunch over, the signal is soon given and we resume the climb, up, up, up! Coming to where the canyon divides we keep to the left making slow progress as the grade is steep. After a time the going is easier as the slope is not so steep and the stones quite firmly in position. Ahead of us the canyon appears to reach the crest of a ridge and as we emerge from it we have a view of the wooded sloping side of the mountain opposite to the side we have ascended. But we are not at the top and must turn to the right until almost about face and follow the ridge that helps to make the right wall of the canyon through which we have come to this point.

The slope is quite steep and our progress is hindered by much fallen timber, as well as by bushes and underbrush and to add to our discomfort the sun shines hotly and we no longer feel the breeze that helped to cool us while in the canyon. Rests are very frequent and several find it hard to respond

promptly when two blasts of the whistle orders the line forward.

But soon we are where we can see the white flag which floats from the top. We all rest here while those who care to go the few steps necessary to be at the very top. It is now the middle of the afternoon and we must not stay long or we will not be out of the woods before dark which is quite essential.

The return trip is made down a broad canyon and there are many rocks and much fallen timber in some places for us to scramble over. Three years ago this canyon was used both for the ascent and descent on one of the first trips made by the Mountaineers. We skirt one side of the canyon to get the easiest grade to the lower end, which is quite broad, and reaching this, we have some of the largest rocks of the trip to surmount in crossing the canyon to intersect our route of the morning at the portal of the narrow canyon.

From this point we have only to retrace our trail of the morning across the large rocks to the woods and then follow the fresh blazes, made that morning, through the woods. Our dunnage has been moved during the day and that night we camp on the North Fork of the Snoqualmie with Mount Si near and in full view. Not all who started made the climb and, of those who did, there were only a few who were not foot-sore and weary when camp was reached shortly after 6 o'clock.

The erbswurst soup and other good things revived each one, but many sought their sleeping bags early that evening. On Monday, trips were made to Snoqualmie Falls and to the Lower Falls on the Cedar River. Depending on the trip selected, the walk for this day was 12 or 16 miles, which included the walk to Moncton on the Milwaukee railroad where train was taken for Seattle where we arrived early in the evening.

July 2d, 3d and 4th, a launch trip was arranged to Hoods Canal, an arm of Puget Sound. The main party left in the morning on the launch and reached the camp site at Holly the latter part of the afternoon. A second party went by regular boat across the Sound to Silverdale in the afternoon and after walking overland to Seabeck were picked up by the launch and conveyed to camp, arriving just about bed time. The following morning the entire party went by launch across the canal and visited the lower and upper Lilliwap Falls, having lunch at the latter. After lunch there was time for a

Plate XXII.

Photo Abel, 1910

ROAD ALONG THE SNOQUALMIE RIVER. MOUNT SI OUTING

Plate XXIII.

Photo Chas. Albertson

ALONG THE TRAIL OF A LOCAL WALK

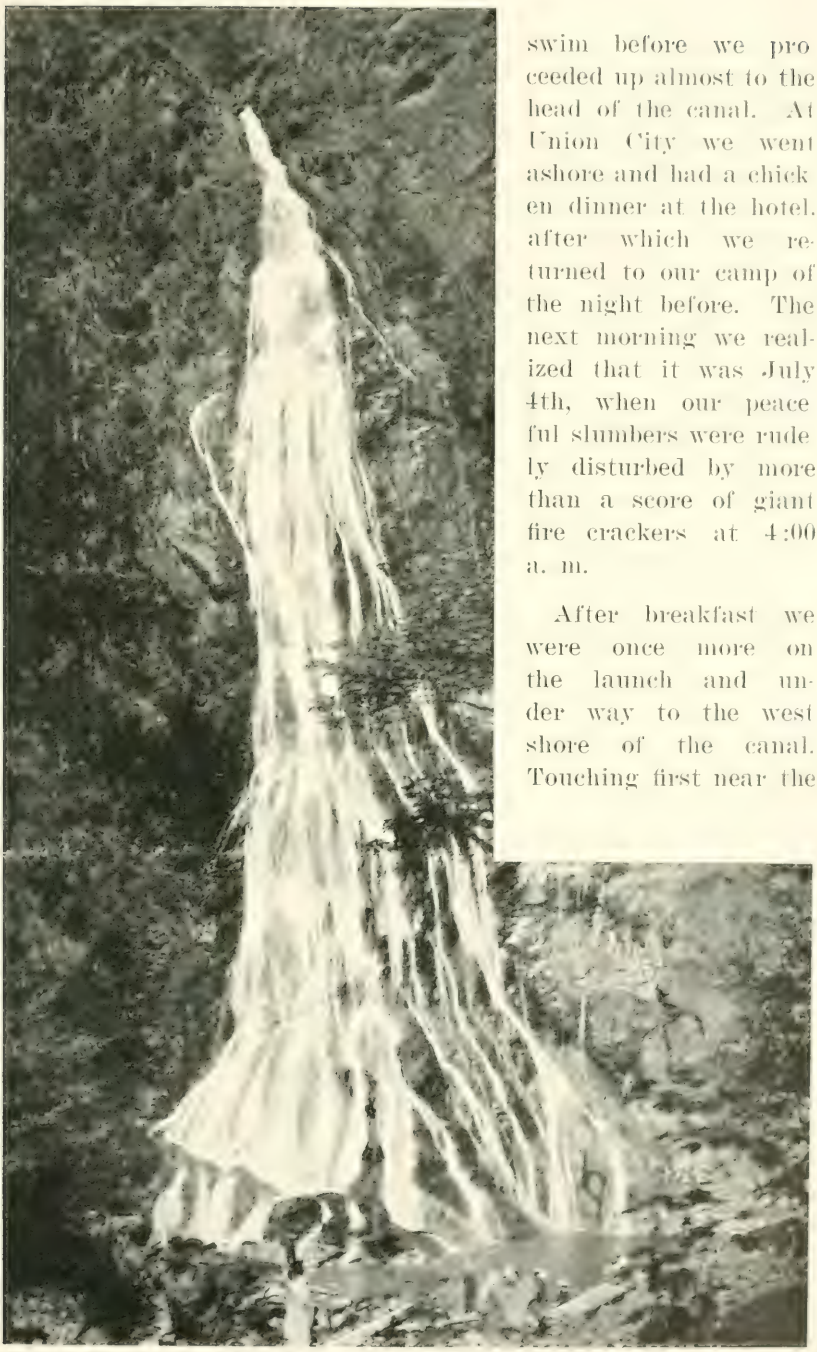

Photo Chas. Albertson
IDLEWILD FALLS ON HOODS CANAL

swim before we proceeded up almost to the head of the canal. At Union City we went ashore and had a chicken dinner at the hotel, after which we returned to our camp of the night before. The next morning we realized that it was July 4th, when our peaceful slumbers were rudely disturbed by more than a score of giant fire crackers at 4:00 a. m.

After breakfast we were once more on the launch and under way to the west shore of the canal. Touching first near the

mouth of the Duckabush River some went ashore to walk along by Pleasant Harbor to Brinnon, while the others remained aboard the launch which went on to Brinnon. Here they went ashore and walked up the Dosewallips River to Idlewild Falls where lunch was eaten. That afternoon the party was reunited on the beach at Pleasant Harbor and many took advantage of another opportunity for an enjoyable swim. Steamed clams, clam chowder and other good things were enjoyed at a 3 o'clock dinner and shortly after 4 o'clock the launch was under way headed for Seattle which was reached about six hours later.

September 3d, 4th and 5th, another trip was made and this time the boat was headed for the San Juan Islands. Leaving Seattle at 8:00 a. m. we soon pass West Point Light and head for Whidby Island. Owing to the fog we only have occasional glimpses of the shore of the mainland. Leaving Puget Sound we enter Possession Sound and skirting the shores of Whidby Island soon enter Saratoga Passage and passing between Whidby and Camano Islands enter Skagit Bay. Skirting the northeast shore of Whidby Island, Fidalgo Island is soon at our right and we are about to enter Deception Pass between the two islands. Everyone is ordered below and inside so that the launch may be more easily steered through the rushing waters of this narrow pass. We next cross Rosario Strait and go through Lopez Pass to Lopez Sound and continue north into East Sound. We arrived at Newhall on Orcas Island at about 5:00 p. m. and at once proceeded to make camp in a grove offered for our use by the owner, Mr. Moran.

Sunday the party divided, one section going by trail through the woods and along the shores of a lake and then by wagon road to the summit of Mt. Constitution, elevation about 2,500 feet. About a mile from the summit a stop was made at a spring and lunch eaten. From the top only a glimpse of some nearby islands was obtainable as all else was obliterated by the dense smoke and haze. The return trip was by the same route and was accomplished in time to allow those that cared to, to indulge in a plunge in the waters of the harbor. A plunge was enough—the water was ice cold.

The second party had a very enjoyable trip to Friday Harbor and returned with some salmon for the commissary and the deck of the launch covered with watermelon seeds. That

Photo by McCormick

Robert Moran has offered to donate eighty acres of his land near the summit of Mt. Constitution, the highest in the San Juan Islands, provided the state will acquire the actual summit.

evening at the invitation of Mr. and Mrs. Moran, the entire party had the pleasure of listening to beautiful music rendered on the fine organ at their summer residence nearby. That night some of the Mountaineers had no desire to desert the camp fire and it was only by special request that they retired about midnight.

Monday an early start was made and going by East and Lopez Sounds and Lopez Pass, we reach Rosario Strait. Instead of crossing to Deception Pass we continue south so as to cross the eastern end of the Strait of Juan de Fuca. It was not very long before we were in sight of the swells and rollers that came from the Pacific Ocean. Soon they begin to toss our launch and the captain orders everyone down from the upper deck and inside from the bow. An occasional wave splashes over the side but the wetting is not minded. Everyone is wondering how soon some one will be seasick and who will be the first. We are tossed quite roughly for a time but finally we are going with the waves and the worst of the ordeal is over and all are happy. Whidby Island is at our left and soon we are in Admiralty Inlet where the water is quite smooth. It is lunch time but no lunch is ready so we proceed to devour all the available sardines, crackers, chocolate and fruit that we can find.

Going toward the pier at Point No Point, where we expected to land for our regular lunch, we find the water too low and must go on farther. In about an hour we reach a pier near Applecove Point where we can land and go ashore and soon a substantial lunch is ready for us. That over it is only a short ride on to Seattle where we arrive about 7 o'clock.

On these two launch trips we were accompanied by our cook, Mr. Carr, which added much to the pleasure of the trips. Much of the enjoyment of the launch trips is from just the fact that the launch ride is to be enjoyed by resting and not by doing any strenuous walking. So we like all the trips because each is different from the other and the latest, best of all and the next one will surely be better so may the last one be far in the future.

* * *

SUGGESTED ACTIVITIES.

A. H. Albertson.

The Mountaineers have a destiny. They should search high to find it. We have been mostly getting. The greater growth comes with giving. We take strength and inspiration from the hills; they should show forth in works—permanent and of human benefit. As an organization the Mountaineers have sufficient resource and talent to make lasting local history.

Compared with other parts of the United States this sunset country is new and undiscovered, particularly in the fields of natural science. Its beauty and variety of forms, its monuments of profound strength are unexecelled on this continent. There are lines of action leading to such works—to the writing of such history, and to the finding of such destiny. They are as follows:

I. Geology and Extinct Life.

As Dr. Lyman stated in *The Mountaineer* of 1907 this section will richly reward the study of geologic forms. "At the present stage of investigation, the geological history of our mountains cannot be wholly affirmed. It constitutes one of the most interesting problems for the scientific students of our state."

II. Geography and Exploration.

A surprising number of the natural features of the country round about are nameless—many are inappropriately named. Facts could be collected, names selected and recommendations made to Washington for their adoption. The naming of nameless mountains is already under way. Topography and map making are given considerable attention by the Appalachians. In Boston they have upheld the Park Board, the Civic Plans Commission and the School Board in their playground work.

The Mountaineers may also well look forward to the time when serious explorations may be undertaken.

III. Vegetable Life.

The Eidelweiss Committee is already looking toward importations of new species. Along with the Eidelweiss the arbutus, the girlhood flower of the secluded eastern woods, is worthy a playground on our Western slopes. *The Mountaineer* already records scientific effort in the domain of vegetable life extant.

IV. Animal Life.

The protection and extention of game life is one of the Mountaineers' most obvious duties. It was reported recently that a small party of hunters in a few days shot thirty-one deer from one camp in this

vicinity. The Local Walk to the salmon run at Chico showed the unfortunate sacrifice of helpless spawning salmon. The Lake Washington Bird Preserve deserves the watchful eye of every friend. The stocking of lakes and streams now barren of fish would make delightful objectives for excursions. The Sierras are now undertaking this. The importation of new birds and possibly animals and fish would be constructive work and the identification of forms already here would be of scientific interest.

V. History and Bibliography.

Old documents and records, original statements of pioneers and Indians as to legend and fact will be valuable in future years. The compiling of a bibliography of the Northwest would be a creditable undertaking. It would be desirable if works published by individual members and bearing on the objects of the Club, could become a part of the Club's publications.

VI. Roads and Trails.

The Mountaineers are preparing a card catalogue of trails in the mountains of Washington, for the use of the general public, but a record of new trails cut by the Mountaineers should be forwarded to Washington and desirable new ones requested. Advancing the interest of good roads about Rainier and in the Olympics is lasting work. A shelter hut at Camp Muir on Mt. Rainier could be projected. It might easily lead to the establishment of a Government observatory.

VII. Forests and Parks.

This work could comprise primarily the conservation of natural beauties and secondarily the conservation of natural resources. The more extended use of the Regular Army to guard Natural Parks and forests would greatly protect the parks as well as incidentally to give to the army further *raison d'etre.* The work of the Department of Agriculture and of the Interior where it agrees with the objects of the Mountaineers could be upheld and strengthened.

VIII. Law and Legislation.

The upholding of laws relating to all the above subjects and the development of advance laws relating to game, forests and roads would add prestige to the Mountaineers.

IX. Club Relations.

In reading the constitutions of the five mountain climbing clubs of the United States and Canada, a complete oneness of purpose is shown. In so far as this purpose calls for action in conserving natural beauty and resource and in the extentions of animal and vegetable life, it should be united on work other than local. To facilitate this the clubs must become acquainted. Ways of bringing this about are suggested on another page by the exchange of magazines, lecturers and guests to annual Outings. It will be desirable soon to consider ways and means of developing the Mountaineers activities in other cities of the state as has been done in Everett and Tacoma.

The question immediately arises as to how all this work can be done. The work might be carried on by committees of about three. In looking through the membership list the names of many members of note immediately present themselves in connection with each of the following suggested committees:

Committee on Geology and Extinct Life.
Committee on Geography and Exploration.
Committee on Vegetable Life.
Committee on Animal Life.
Committee on History and Bibliography.
Committee on Roads and Trails.
Committee on Forests and Parks.
Committee on Law and Legislation.
Committee on Club Relations.

Permanent Fund.

In order to achieve the above results, the common place and eternal question of finance must first be faced. In this connection the establishment of a Permanent Fund is urged, the interest only being usable for advance work. To feed this fund life memberships of say $30 could be authorized. Initiation fees of say $2 could be required and assigned to this purpose. When the Treasurer's yearly balance is considerable a small fraction could be voted to the Permanent Fund. The permanency of such a fund and the seriousness of its purpose would tend to invite occasional bequests. The Appalachian Club now has a similar irreducible fund of $11,000.

Property Fund.

The time is coming, as it has already with other mountaineering clubs, when the Mountaineers will want to build shelter huts on some of our peaks, or possibly a log bungalow for winter excursions. A future need is likely to be a club bungalow as conveniently located in the city as possible. The immediate requirement is a club room. In order to look forward to something of this sort the starting of a Property Fund is suggested by setting aside each year 25 per cent. of the net yearly cash balance.

In conclusion, there can be no more auspicious or convenient season than this for the Mountaineers to look forward to broader pleasures through more complete development and more serious work. This is the proper fruit of the strength and the inspiration bestowed upon us by the clean fresh breezes from the sea, the pines, the snows; and by the power and the grandeur of our "Great White Hills." Prof. Meany's poem on Mt. Rainier could well be adopted as a personification of Destiny's call to the Mountaineers:

"Thou King, in ermine robes of crystal snow,
Lift high thy royal head, serene and proud,"
"A lurefor some in each swift hurrying crowd,
Whose hopes are raised and hearts anew are vowed
To catch like thee, God's lift and onward throw."

RAILROAD CREEK

Photo by A. H. Crist

Plate XXV.

Photo L. A. Nelson

TEN PEAK MOUNTAIN SEEN FROM CAMP NELSON

Plate XXVI.

Photo by A. H. Cruse

CHIWAWA RIVER

Plate XXVII.

Photo by A. H. Cruse

RETURNING FROM THE SUMMIT

Plate XXVIII.

Photo by P. M. McGregor

LYMAN GLACIER

Photo J. W. Wilson

CEDAR AND FIR IN A WASHINGTON FOREST

Copyright, Romans Photographic Co.

LAKE CHELAN

Photo Lindsley

THE MOUNTAINEER

Volume III

OUTING OF 1911, NOTES
OF OTHER CLUBS, OTHER
NOTES, REPORTS, ETC.

November
Nineteen Hundred and Ten

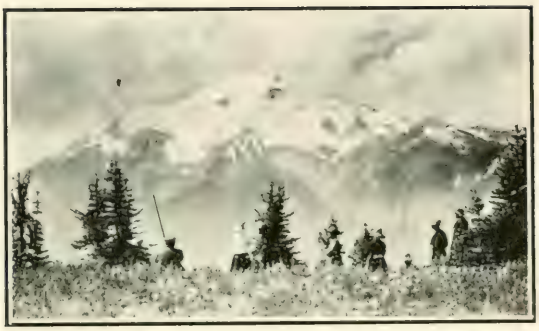

Photo by A. H. Cruse
GLACIER PEAK FROM FLOWER HILL

* * *

Speak, speak, ye peak; proclaim the goal;
Reveal thyself; lay bare thy soul!
I hear thy voice roll down thy throne—
"Thou too, art god-like—stand alone!"

A. H. Albertson.

* * *

Listen: don't you hear the fir trees singing
Sweet and low at dead of night;
Singing, singing, softly bringing
Music from the realms of light.

Listen: don't you hear the waters falling,
Falling down thru melody;
Falling, calling, gently calling
Other days of reverie.

Listen: don't you hear new voices speaking,
Speaking truth and mystery;
Softly, clearly, greatly teaching,
Life grows toward all harmony.

A. H. Albertson.

* * *

MOUNT ADAMS OUTING OF 1911.

L. A. Nelson.

The annual summer outing of the Mountaineers for 1911, will be to Mount Adams and the Goat Rocks. A general outline of the route can only be given at this time.

The party will travel from Seattle to White Salmon by train, the last sixty-five miles being along the Columbia River. Leaving the railroad here the route is up the White Salmon valley to Trout Lake then over the Morrison Creek trail to a camp at timberline on the south side of Mount Adams.

After a few try-outs in visiting the surrounding country the climb of the mountain will be made. Leaving this camp the trail around the western side of the mountain will be followed to the north side, then the party will go north along the summit of the Cascade range to the Goat Rocks. A short detour will be made around this rugged mass. We will then go north to Cowlitz Pass, down the Cowlitz River to Skate Creek and up this stream through Skate Pass to Longmire Springs, Mount Rainier National Park. The last part of the journey will be over the government road to Ashford and to Seattle by train.

The scenery is some of the grandest to be found in the West. The ever-changing scenes along the Columbia with Mount Hood always in view, brings to mind the lines of the Bugle Song:

> "The splendor falls on castle walls,
> And snowy summits old in story."

The falls of the White Salmon, with the river above and below, rushing and leaping between canyon walls, the forests of pine, the road along the rim of the canyon, all are interesting. Even more wonderful are the mountain parks, the alpine flowers and trees, the ragged peaks, glaciers with their crevasses, ice falls, and seracs, and majestic Mount Adams towering above.

From Mount Adams to the Goat Rocks the country is dotted with many beautiful lakes, from Lakeview Mountain over fifty can be seen. The Goat Rocks form one of the most rugged peaks in the Cascades and over their precipitous walls numerous waterfalls plunge.

Cowlitz Pass is a great mountain park studded with jewel-like lakes. Beyond is the Cowlitz valley with its deep canyons, Skate Pass, the Nisqually River with Mount Rainier in full view, only a few miles away.

NOTES OF OTHER CLUBS.

There are in this country four well established mountain clubs, and one in Canada: The Appalachian of Boston, the Sierras of San Francisco, the Mazamas of Portland, the Mountaineers of Seattle and the Canadian Alpine Club of Banff. The time is appropriate for these clubs to be informed of each others plans and accomplishments. It is suggested for the following issues of *The Mountaineer* that each of these clubs be asked to contribute a short, broad article on their last year's record and the coming year's purposes. Such articles would stimulate new ideas, incite new activities, disseminate information and enliven our community of interests. There is every reason why all of these clubs should be in sufficient accord to act with the force of one body on subjects of common interest. If these clubs were organized for joint team work the results of such focal action would be clearly more telling. Such subjects as the destruction of the Hetch Hetchy valley, the construction of road-ways around Mt. Rainier, the Appalachian Forest Reserve, the regulation of forest fires and other legislation vital to the conservation of natural beauties as well as to the conservation of natural resources could be more certainly aided. To advance the relations between these clubs the yearly publication of each club could be forwarded to the principal officers of each other club. It is certain that an exchange of yearly stereopticon lectures would enliven mutual interest. Possibly the best acquaintance would be gotten by each club sending a delegate to the yearly outing of the other clubs. Last year twenty well known guests made the trip from six countries of Europe to the Rockies as invited guests to the yearly outing of the Canadian Alpine Club. The Appalachian Club also sent an accredited guest to the Canadian Alpine Club in the person of Mr. B. F. Seavers.

In order to initiate this excellent custom with the Mountaineers it is sugegsted that invitations be sent at least to each of the Pacific Coast clubs urging them to send an official guest to the next year's Outing to Mount Adams. A. H. A.

The Sierra Club

The Sierra Club *Bulletin* of January, 1910, contains much of permanent interest and worth. An illustrated article on "The Observatory on Mt. Whitney," by Alexander McAdie, after recording the trip up and the results of observation of Mars ends with this strong paragraph: "In the second of these memory pictures there moves a solitary figure, strolling leisurely near the summit as the summer night falls. Neither night nor fear daunt him. Self-reliant and indifferent to what may befall so far from human help, he wanders where his fancy leads, free as the air around him. Unlike the rest of us, he courts not the comforting sup-

port of comradeship and takes the unbroken way through pass and over crag. * * * A roamer in many lands, his wistful eyes have searched the hidden places of glade and crevasse in regions unexplored. He has wandered farther and seen more than the men of his generation; but his heart turns ever homeward to the 'Mountains of the Light'." There, fittingly, the picture leaves him. In the sombre gloom of the depths around him in the deepening shadows, in the sweep of the wind, he finds friendship; communing with old friends, while night with a thousand eyes of splendor watches over all.

The closing paragraph of a contribution entitled "A High Sierra Circuit on King's River, by W. A. Morgan, appeals to all mountain climbers. "And although the embers of the last camp fire are dead, the glow in the heart kindles anew as the twilight hour creeps over us with its subtle spell calling forth the spirit of reminiscence. Again we feel the bracing air of the mountain-side laden with the fragrance of balsam and fir. Once more the song of birds mingles with the whispering of the pines and the murmur of the brook. We start afresh on the dewy trail; we climb the heights; we seek the noon-day shade; and then, as purple shadows gather on the western slopes, return to camp and friends and—fall asleep."

The Outing of 1910 is reported by Marion Randal Parsons in this issue of *The Mountaineer*.

The 1909 Outing is considered thus far the most successful in the history of the club. The objective was the Grand Circuit of the Yosemite National Park. "The circuit beginning with Yosemite, included the Little Yosemite, Upper Merced Canon and lakes, the attractive high mountain camp ground at Tuolumne Meadows, the Grand Canon of the Tuolumne, Matterhorn Canon, Rogers Lake, Pleasant Valley, and the famous Hetch Hetchy Valley. Climbs of Mountains Clark, Ritter, Dana, Lyell and Conness were made by members of the party."

About 200 people composed the party. The President, John Muir, accompanied the outing. Dr. Jepson lectured on trees. Music was given by Signor and Madam de Grassi.

A Glance at the Appalachian Club

The Appalachian Mountain Club, with headquarters at Boston, was founded in 1876. In addition to its yearly magazine it publishes frequent pamphlets of about a dozen pages. The August *Bulletin*, as it is named, refers to the origin of the club. Prof. Edward C. Pickering, now president, with two others, were standing on the summit of Osceola in the Northeastern Appalachian Mountains in 1873 and conceived the idea of a mountain club. The first meeting was held in 1876. It was chartered in 1878. The membership is now in the neighborhood of fifteen hundred.

The Fourth of July trip of this year is given under the name of "Forty-fifth Field Meeting," lasting eight days. From the report is this sentence: "Wednesday the 6th was very hot, 113° in the sun at 7 a. m." Compare this to the sea breezes tempered to our pleasure the same day on Hoods Canal. "Sunday morning services were held and a sermon preached by one of our party," the report states. This might

be an extract from the minutes of the Mountaineers' Main Camp this summer.

The *Bulletin* records the club's "Memorial Day Excursion" of five days. Thirty-nine Bostonians made the party. "After lunch we started for the top," quoting the *Bulletin*, "and past another spring where we found a few arbutus blossoms beneath the logs." Surely our own Eidelweiss Committee will soon bring to this, the sunset side of the Cascades, this most modest flower, known to romance and story as the queen of the kingdom of flowers, so that we too may be lead to the top and past refreshing springs in quest of this delicate and retiring fragrance of the open woods.

The Appalachian "August Camp" evidently corresponding to the Mountaineers' Annual Outing, lasted fifteen days, was pitched in the Maine woods and was attended by forty-two members. "The weather was unfortunate—heavy showers with much thunder at night. The brooks and the river were well filled with water, new cataracts developed on the sides of Jefferson and the trails and paths became very muddy." By contrast this again shows nature's bounty to the climbers of the most Western mountains.

An "Autumn Excursion" lasting ten days and to be composed of about ten members and friends is announced. In the "Labor Day Excursion" to have lasted five days, reference is made to visiting two of the club's properties.

Their "Natural History Walks" correspond to our Local Walks, except they are scheduled for every Saturday afternoon. The Appalachians with their large membership consider a party of a dozen sufficient for maintaining local walks.

Trail and Travel

From the *Evening Bulletin* of Honolulu of April 8, 1910, we learn of an organization in the Hawaiian Islands similar in purpose to our own. This is the Trail and Travel Club which is "trying to better conditions of living in the islands, by conserving and making usable the magnificent natural scenery of trail, valley and mountain, and additionally so by intelligent co-operation with the great organizations of the nation, and getting their aid when necessary for the furtherance of the more immediate and particular purposes of the club."

The Alpine Club of Canada

The Alpine Club of Canada's *Journal* for 1910 is about one and one-quarter inches thick and contains two hundred and thirty pages with a number of small photographs. One-half of the volume is descriptive of various mountain climbs by small and large parties. The club adds to its record four first ascents,—North Tower of Mount Good sir, Mount Victoria, Mount Kilpatrick and Augustine Peak. The Scientific section contains careful flow records of Yoho Glacier, showing travel of different parts of the glacier varying from 25 to 150 feet a year. One of the guests from England to the Outing says in leaving, "So ended a glorious week, and we separated. We know that we are

richer by the memory of a week where all went right and nothing went wrong. East knows West and West knows East a little better than before and we trust that the friendship begun among the mountains may be a link in the chain that binds together one great Empire."

The Mazamas of Portland

Our neighboring mountain climbers, The Mazamas, made The Three Sisters the objective of their yearly Outing of 1910. The Three Sisters are located in the Cascade Divide in the middle of Oregon.

NOTES.

In July the Duke of Abruzzi reached an altitude of 24,500 in the Himalya Mountains. This is believed to be the highest point yet gained above sea level.

* * *

The Sierras are planning to plant Golden Trout in the South Fork Basin of the King's River. Over 40,000 trout were received and planted in various parts of the Yosemite Park in 1909 by the Park Superintendent.

* * *

The following on the "Neglect of Beauty" is quoted from an editorial in the *Century*, February, 1910: "Although the declaration of the first White House Conference of Governors included a record of their agreement 'that the beauty, healthfulness, and habitability of our country should be preserved and increased,' it is much to be regretted that the official leaders of the conservation movement—than which nothing is more important to the country—have never shown a cordial, much less an aggressive, interest in safeguarding our great scenery, or in promoting, in general, this part of their admirable program. . . . The first thing that a man does after he obtains a competence is to invest his money in some form of beauty, and it is in the interest of good citizenship that he should have a plot of ground to be proud of. He settles in some town, suburb, or other region mainly because it is beautiful, and he is all the happier if his home can command an attractive natural view. As he grows richer, this desire for beautiful things, and particularly for a beautiful country place, becomes more dominant, and it is to such a feeling that we owe the development of our sea coast and hilltops into regions of resort for health and recreation. The American still apostrophizes his country with the lines:

"I love thy rocks and rills,
Thy woods and templed hills."

But it is not merely the colossal beauty of the Sierra, Niagara, and the Hudson that should be preserved and enhanced, but the beauty of city, town, and hamlet. What is needed is the inculcation, by every agency, of beauty as a principle, that life may be made happier and more elevating for all the generations who shall follow us, and who will love their country more devotedly the more lovable it is made.

* * *

Governor Hughes in speaking at the dedications of the Palisades Interstate Park said, "Of what avail would be the material benefits of gainful occupation, what would be the promise of prosperous communities, with wealth of products and freedom of exchange, were it not for the opportunities to cultivate the love of the beautiful?"

* * *

The United States Geologic Survey has finished its preliminary work for the final mapping of Mount Rainier Natural Park. Accurate surveys to determine the exact altitude of Mount Rainier were run last summer. The true height will be announced next year it is expected. In this connection the following letter from the United States Geological Survey relating to the height of Mount Rainier and others is of considerable interest. "The elevation of only one of the three mountain peaks named by you has been determined by spirit leveling, namely, Mount Whitney, California, 14,501 feet, plus or minus one foot correction, above mean sea level.

* * *

The Sierra Club *Bulletin* very pleasingly reviews President Meany's work, "Vancouver's Discovery of Puget Sound.". "The State of Washington," the review continues, "is fortunate in numbering among its citizens a man whose careful and earnest research is rescuing from oblivion many interesting facts of its early history."

* * *

The review of Dr. Lyman's book, "The Columbia River," has a flow like the river itself. "Running water, with its unending, resistless striving towards unknown goals, has for many of us a certain mysterious allure, rivaled perhaps, among all the forces of nature, only by the tides of the sea. The child who sets his fragile play-craft adrift in the way-side gutter, the fisherman in whose ears the song of the river rings all through the city-bound months of the year, the poet who finds his inspiration in the onward rush of mighty waters—are but a few of those who confess themselves subject to its charm. And so to many readers of William Denison Lyman's recent book, 'The Columbia River,' will make instant appeal."

* * *

The current number, November, 1910, of the National Geographic Magazine is a particularly creditable number. The illustrations include forty color plates of unusual beauty illustrating scenes in Korea and China.

Mount Rainier National Park.

Mt. Rainier National Park

The growing appreciation of Mount Rainier National Park is indicated by the increasing yearly attendance. During the summer season of 1908 about 3,800 people visited the Park; in 1909 there were over 6,000 and up to date this year about 8,000. In conversation with Mr. Ricksecker, engineer in active charge of the park for the United States Government, it developed that game life is rapidly disappearing from Mount Rainier. In the winter due to the snow, deer migrate to the lower feeding grounds bordering the Park. Here many hunters congregate to shoot them like pigeons from the traps. Either the limits of the Park should be extended to include the low lying feeding grounds now in the National Forest Reserve; or the game laws of the Park prohibiting all shooting should be extended to cover a belt of the National Reserve, say ten miles wide entirely around Mount Rainier Park. This would be similar in principle to the Lake Washington Bird Preserve now established around Lake Washington.

The government road was opened in September to the Camp of the Clouds. Last year Senators Humphrey and Piles offered a bill before Congress asking for an appropriation for surveys and towards the construction of the hoped for road entirely around Mount Rainier. The bill failed of passage as first presentations frequently do. This proposed government road, circling Rainier just below the glacier line, would form one of the most spectacular, beautiful and instructive drives in the United States. More glaciers of note break down from Mount Rainier than from any other peak in the country. Accordingly, our Senators should be requested to represent the bill of last year and add thereto proper methods of protecting the game by the extention of Mount Rainier Park. The establishment of Mount Rainier Park itself is a precedent for these requests. A. H. A.

* * *

The Mountaineers are indebted to A. H. Sylvester, Supervisor of the Wenatchee National Forest, for his courtesy to them during the recent outing at Glacier Peak.

* * *

The Club appreciates the efforts of W. A. Ross of the Great Northern Railroad to secure minimum transportation rates for our outing.

* * *

The Commercial Clubs of Chelan and Wenatchee contributed to the pleasure of our visit to their vicinity, the former by their kind attentions, by crates of fruits, the latter by their hospitality.

* * *

The delicious coffee used on local walks and the excellent supplies used in the many outings are from Augustine & Kyer.

* * *

The Mountaineers are urged to patronize the advertisers in the Club Annual.

No.	Date.	Route.	Distance.	Leader.	Attendance	Net.
67	Nov. 14, 1909	Bothel to Hall's Lake	12	C. G. Clark	65	.....
68	Nov. 29, 1909	Mercer Island	5	W. M. Price	37	2.30
69	Dec. 12, 1909	Green Lake, Country Club and Phinney Ave.	10	Annie C. Brayton	28	1.90
70	Dec. 19, 1909	Kirkland to Bothel	10	Arthur Carkeek	18	1.15
71	Jan. 9, 1910	Fauntleroy to South Park	9	L. A. Nelson	41	3.35
72	Jan. 23, 1910	Vashon Island, Portage to Rocco and return.	8	Lydia E. Lovering	53	6.35
73	Feb. 6, 1910	Bothel to Green Lake	11	Roberta Lee Terry	60	2.40
74	Feb. 20, 1910	Newport to Kennydale	11	H. V. Abel	92	5.40
75	Feb. 26, 1910	Bailey Peninsula	5	Chas. Albertson	37	.....
76	Mar. 6, 1910	Hall's Lake to Edmonds	10	Thos. J. Church	77	6.05
77	Mar. 12, 1910	Fort Lawton	5	Winona Bailey	76	.....
78	Mar. 20, 1910	Kirkland to Bellevue	12	Gertrude Smith	46	2.50
79	Mar. 26, 1910	Golden Gardens to Schriners	5	Emma R. Simonds	40	.....
80	April 3, 1910	Bainbridge Island, Seibold to Pleasant Beach.	14	J. J. Arms	76	2.90
81	April 9, 1910	Schmitz Park	4	Fred Q. Gorton	17	.....
82	April 17, 1910	Port Orchard to Long Lake and return	12	Elizabeth Gordon	64	1.90
83	April 23, 1910	Earlington to Duwamish	5	H. May Baptie	16	.....
84	May 1, 1910	Hall's Lake to Everett	16	Frank S. Southard	65	.....
85	May 7, 1910	Mercer Island	4½	A. Roger Merril	14	.....
86	May 15, 1910	Chico to Wildcat Lake and return	10	J. Best, Jr.	95	10.55
87	May 22, 1910	Tacoma, American Lake	9	Cristine Cameron	42	1.55
88	June 4, 1910	Alki to Fauntleroy	5	J. W. Wilson	20	.....
89	June 12, 1910	Newport to Phantom Lake and Bellevue	8	Grace Howard	32	3.70
90	Oct. 2, 1910	South Park, Burien Lake and Foster	13	Mr. and Mrs. C. G. Clarke	51	2.40
91	Oct. 16, 1910	Martha Lake, Silver Lake and Beverley	12	Dr. H. B. Hinman	103	9.30
92	Oct. 30, 1910	Bothel to Juanita	9	Arthur Carkeek	90	6.40
93	Nov. 13, 1910	Chico to Hidden Ranch and return	6	Mary Paschall	132	4.55
						$74.60
	June 4, 1910	Campfire at Fauntleroy			108	.....
7	Dec 31 to	*Special Outings*—				
	Jan 2, 1910	Scenic Hot Springs		L. A. Nelson & M. A. Krows.	55	11.00
8	May 28 30, 1910	Snoqualmie and Mount Si		H. O. Fuller & Chas. Albertson	48	11.20
9	July 2 4, 1910	Hood's Canal		Roy Hurd	89	56.01
10	Sept. 3-5, 1910	East Sound and Orcas Island		Mr. & Mrs. Roy Hurd	62	23.45
						$101.66

EXPENDITURES.

Jan. 23, 1910	Coffee and buckets	$	3.25
Feb. 1, 1910	Repair knapsack and stamps		.15
Mar. 11, 1910	Large coffee bucket		1.85
Mar. 18, 1910	Knapsack		.50
May 1, 1910	Shortage on Everett walk		1.60
May 16, 1910	Stamps		.30
June 4, 1910	Campfire		.95
July 22, 1910	Check to treasurer		60.00
Sept. 16, 1910	Check to treasurer		80.00
Sept. 28, 1910	Stamps		.16
Nov. 12, 1910	Hand axe		1.00
Nov. 14, 1910	Balance cash on hand		26.50
	Total		$176.26

RECEIPTS.

Local walks		$ 74.60
Local outings		101.66
	Total	$176.26
Net profit		$166.50

During the year there were seven Saturday afternoon walks with an average attendance of over 31; the one led by Miss Bailey being largest, 76. Nineteen Sunday walks, average attendance 63; the largest being Miss Paschall's, 132. Four local outings, average attendance 63; the largest being to Hood's Canal led by Mr. Roy Hurd, 89. Largest average attendance on Sunday walks during 1909 being 41.

Respectfully submitted,
P. M. McGregor, Chairman.

To the Mountaineers:

Your Auditing Committee has compared the financial accounts of your Local Walks Committee, Mr. P. M. McGregor, Chairman, with the vouchers and find the comparison to be correct.

The accounts show receipts from Local Walks and Special Outings of $1,417.55. The expenses were $1,251.05 and the balance $166.50 is in the hands of your Treasurer.

Respectfully submitted,
CHAS. ALBERTSON,
C. G. CLARK,
HARRY B. LEAR.
Auditing Committee.

THE MOUNTAINEERS.

DIRECTORS FOR THE YEAR 1910.

Prof. Edmond S. Meany, President, 4025 10th Avenue Northeast.
Dr. E. F. Stevens, Vice-President, 1505 East Madison Street.
Charles M. Farrer, Secretary, 522 Pioneer Building.
Frank S. Southard, Treasurer, 55 Haller Building.
Miss Lulie Nettleton, Historian, 1806 Eighth Avenue West.
Asahel Curtis, 627 Colman Building.
L. A. Nelson, 627 Colman Building.
Prof. J. B. Flett, 107 North Tacoma Avenue, Tacoma, Wash.
Miss Alida J. Bigelow, 1139 Eighteenth Avenue North.
Miss Lydia E. Lovering, 23 West Boston Street.
Melvin A. Krows, 924 Third Avenue West.
Grant Humes, Elwha, Wash.

COMMITTEES.

Outing Committee—L. A. Nelson, M. A. Krows, Grant Humes, Charles M. Farrer.

Local Walks Committee—P. M. McGregor, M. A. Krows, Miss Winona Bailey.

Publication Committee—Miss Lulie Nettleton, A. H. Albertson, Lydia E. Lovering.

Program Committee—H. C. Belt, Alida J. Bigelow, W. M. Price.

Miss Anna Howard, Financial Secretary, 1709 Thirty-ninth Avenue. Phone East 2259.

DIRECTORS FOR THE YEAR 1911.

Prof. Edmond S. Meany, President, 4025 Tenth Avenue Northeast.
Dr. E. F. Stevens, Vice-President, 1505 East Madison Street.
Charles M. Farrer, Secretary, 508 Pioneer Building.
Frank S. Southard, Treasurer, 55 Haller Building.
Chas. Albertson, Financial Secretary, "The Chelsea."
Miss Winona Bailey, Historian, 1732 Fifteenth Avenue.
L. A. Nelson.
H. C. Belt.
P. M. McGregor.
Miss Lulie Nettleton.
Roy Hurd.
Dr. H. B. Hinman, Everett.

COMMITTEES.

Outing Committee—L. A. Nelson, H. C. Belt, Dr. E. F. Stevens, C. M. Farrer.

Local Walks Committee—L. A. Nelson, Roy Hurd, Chas. Albertson, Dr. H. B. Hinman, Everett.

Publication Committee—Miss Lulie Nettleton, A. H. Albertson, Helen Gracie.

Program Committee—Wm. H. Gorham, Dr. Cora Smith Eaton, Earl G. Rice.

THE EVERETT MOUNTAINEERS.

Dr. H. B. Hinman.

"The Everett Mountaineers" had their inception in a chance meeting between Mr. Asahel Curtis and the writer at Reese's Camp, Mount Rainier, in August, 1909. At that time there were no members of "The Mountaineers" in Everett.

Immediately upon my return, however, I made application for membership, and after being elected the idea occurred to me to secure enough local members, so that we might have walks the same as were held in Seattle.

How well the plan has been carried out can be judged from the following facts:

There have been elected from Everett forty members, besides five from outlying towns tributary to us.

He have held up to date, thirteen local walks, the first one being the middle of last April. The average attendance at these walks has been fifteen, but of late it has been about twenty.

We have also held two joint walks with the Seattle Club, which have been well attended from both places, and very pleasant and successful affairs.

Also one special outing May 29th and 30th, Decoration Day, with sixteen attending. We took the Great Northern to Halford—five miles above Index—walking back past the Grey Eagle Canyon and Sunset Falls, and spending the night at Index. The following morning we went to Reiter and made the climb to Lake Isabel, 2,500 feet above the railroad. It is generally conceded to be one of the most beautiful mountain lakes in the state, and on the return every one voted it to have been one of the "red letter days" in their lives.

We have also held a number of social evenings at the homes of our members, including three stereopticon lectures by Mr. L. A.

Nelson, in which he showed us the views of the Olympic, Baker, and Rainier Outings.

Eleven of our members were on the Glacier Peak Outing, nine (9) of them reaching the summit.

The Board of Directors has granted us a tentative organization with a Local Committee of Managers consisting of three members.

We think that we have made good, and will do even better in the future. We trust that some permanent provision may be made in the charter of the club for local organizations, and that the work we have started will result in local branches in Tacoma, Bellingham, Spokane and other points throughout our state.

H. B. HINMAN,
Chairman Local Committee
Everett, Wash.

REPORT OF THE PROGRAM COMMITTEE.

Programs for the Meetings of the Past Year.

December 17, 1909.—Mr. Jas. F. Illingworth of the Broadway High School, on the "Color of Birds" illustrated by many stuffed specimens, showing the wonderful adaptation in color of various birds to their particular needs.

January 21, 1910.—Mr. W. Francis Newell on "Central America, the Country and its People," illustrated by stereopticon views taken by the speaker while he was a consul in that country.

February, 18, 1910.—Mr. Eugene Ricksecker on "Roadmaking in the Mt. Rainier National Park," with views and much valuable information of the work past, present and intended in that line.

March 18, 1910.—Prof. E. S. Meany on "The Mountains of Washington," telling of the surprising number of high mountains in the state, how they received their names, and the legends connected with them.

April 15, 1910.—Mr. Corwin S. Shank on "Hawaii and Japan," showing many pictures of natural scenery in those countries taken far away from the usually traveled routes.

May 20, 1910.—Hon. J. T. Ronald on "The Glacier Peak Country," interspersed with many beautiful descriptions and amusing incidents connected with that country.

October 21, 1910.—Mr. L. A. Nelson, on the "Glacier Peak Outing," illustrated with the many pictures taken by Messrs. Denman, Cruse, Lindsley, Albertson, Gorham, Gleason, McGregor, Hinman and Nelson on the last summer's outing.

November 18, 1910.—Prof. Trevor Kincaid on "Animal Aviators," showing the various provisions for flight in the different species of birds.

Respectfully submitted,

H. C. BELT,
Chairman.

SECRETARY'S REPORT.

The past year has been a most prosperous and interesting one for The Mountaineers. The number of members in good standing has increased over 50 per cent. The walks and outings have been particularly pleasant and well attended and the outside work of the club quite comprehensive and for the most part, productive of results.

By the help of a very enthusiastic Everett member, an auxiliary club was organized in Everett, thereby adding 48 members to our rolls. Their program of walks, printed on the general notices has resulted in a very pleasant and profitable intercourse.

In addition to other work we carried on a campaign for more and better roads and trails in the Mt. Rainier National Park and for appropriations to maintain the present roads, a matter that had been entirely overlooked by Congress. Along this line, our efforts have been directed towards obtaining an appropriation for the survey of a road around the mountain, skirting the glaciers at as high an altitude as possible and with a maximum grade of 8%. Such a grade would make it possible to reach many points of great interest, not otherwise attainable. We urge that a trail be constructed along the line of such a survey, with the first money available, so that all sides of the mountain would be accessible at a comparatively early date. Later and as more money became available, this trail could be gradually widened to a road.

We are indebted to many of our friends and to kindred and commercial organizations for their prompt offers of aid and also suggestions for obtaining the necessary legislation to carry out this plan. Also to Senator Piles and Congressman Humphrey for their prompt assistance. We hope that this friendly help will be continued in the future until the results obtained will be in some measure commensurate with the merits of the most splendid mountain in the United States.

A short but strenuous and successful campaign was carried on in the spring to curtail the activities of a shingle bolt company who, having in some manner obtained a permit to cut dead and down cedar in a portion of the Rainier National Park, were cutting and slashing everything in sight, without a protest from anyone.

Our active interest in the naming of points of natural beauty in the state and particularly in the neighborhood of Mt. Rainier, was recognized by an invitation from Mr. Francois E. Mathes of the U. S. Geological Survey, on behalf of the government, for representatives of the club to meet him and discuss this subject.

Being greatly interested in the preservation of the wild animals and birds of the state, The Mountaineers will maintain an active interest during the coming session of the legislature, in obtaining the enactment of a law absolutely prohibiting any further killing of mountain goats.

We were highly pleased by the generosity of Mr. Robt. Moran, who notified the club that he was prepared to donate to the state eighty acres of land near the summit of Mt. Constitution, providing

the state purchased the actual summit adjoining, for the use of the public as a park.

An active campaign will be carried on with this object in view and all other organizations interested in preserving such beauty spots to the public, are urged to cooperate.

CHARLES M. FARRER.
Secretary.

Your Auditing Committee has compared the financial accounts of the Secretary with his vouchers and find the comparison to be correct.

The accounts show $181.66 received and $65.70 expended. The balance of $115.96 is in the hands of the Treasurer.

Respectfully submitted,
CHAS. ALBERTSON.
C. G. CLARK.
HARRY B. LEAR.
Auditing Committee.

To the Board of Directors of The Mountaineers:—

I submit the following report of the finances of the Glacier Peak, Lake Chelan Outing:

Receipts from the outing		$2,641.25
Bills receivable		3.75
Total		$2,645.00
Disbursements:—		
Transportation	$ 736.30	
Provisions	618.53	
Packing	464.02	
Cooks	213.00	
Preliminary trips	72.15	
Prospectus	38.20	
Commissary	63.25	
Trail	25.00	
General Expense	87.99	
Total		$2,318.44
Net Gain		$ 326.56

L. A. NELSON,
Chairman Outing Committee.

Your Auditing Committee has compared the financial account of your Outing Committee, Mr. L. A. Nelson, Chairman, with the vouchers and find the comparison to be correct.

The accounts show receipts from the Glacier Peak Outing of $2,674.36 and expenditures of $2,502.18. The balance of $172.18 is in the hands of your Treasurer.

Respectfully submitted,
CHAS. ALBERTSON.
C. G. CLARK.
HARRY B. LEAR.
Auditing Committee.

TREASURER'S REPORT FOR 1909-1910.

Recepits:—

Dr. E. F. Stevens, Treasurer	$ 110.81	
C. M. Farrer, Secretary	8.00	
Rainier Lecture	23.65	
Advertising and sale of Magazines	49.77	
1908-9 Local Walks and East Sound Outing	84.55	
1908-9 Outing Committee	242.82	
Financial Secretary, dues	799.00	
1909-10 Local Walks	140.00	
Glacier Peak Prospectus and Preliminary Trip	78.20	
C. M. Farrer, Secretary, dues	87.99	
Total Receipts		$1,624.79

Disbursements:—

Gooods stolen from A.-Y.-P. Exhibit	$ 7.71	
Rent, furniture and supplies	42.20	
Addressing and mailing Notices, etc	19.59	
Glacier Peak Prospectus and preliminary trip	78.20	
Printing and Stationery	66.70	
Wiring for lantern service	16.00	
Stereopticon slides and supplies	62.15	
Final payment on Annual for 1909	125.30	
Timber cutting trips (two), Mt. Rainier	34.10	
Aneroid	18.25	
Binding Vol. I	28.25	
Financial Secretary	40.00	
Total Disbursements		538.45

Balance in Seattle National Bank, Nov. 14, 1910		$1,086.34
Outing Fund balance, Bank of California, Nov. 14, 1910	$ 172.18	
Balance from P. M. McGregor, 1909-10 Local Walks	26.50	
Balance from Charles M. Farrer, Secretary, dues, etc	27.97	
Total cash on hand, Nov. 18, 1910		$1,312.99

Respectfully submitted,

FRANK S. SOUTHARD,
Treasurer.

Your Auditing Committee has compared the accounts of your Treasurer, Mr. Frank S. Southard, with the vouchers and find the comparison correct.

The accounts show receipts of $1,851.44 and expenditures of $538.45. This leaves a cash balance of $1,312.99.

Of this balance $1,140.81 is deposited in the Seattle Nattional Bank in the name of The Mountaineers. The Outing Fund balance is in the Bank of California in the name of The Mountaineers Outing Committee and amounts to $172.18.

Respectfully submitted,

CHAS. ALBERTSON.
C. G. CLARK.
HARRY B. LEAR.
Auditing Committee.

MEMBERS OF THE MOUNTAINEERS.

* Indicates the members who participated in the Glacier Peak Outing.
** Indicates Honorary Members.

Abel, H. V.	422 Colman Bldg.	Seattle, Wash.
Adams, H. W.	Room 222, City Hall	" "
*Albertson, A. H.	727 Henry Bldg.	" "
*Albertson, Chas.	727 Henry Bldg.	" "
Allen, Edward W.	402 Burke Bldg.	" "
Archer, A. W.	203 Collins Bldg.	" "
Arms, Jas. J.		Anacortes, Wash.
Athen, Virginia F.	1419 Boylston Ave.	Seattle, Wash.
Atkinson, Will	Box 746	" "
*Avey, O. L.		Lake Ballinger, Wn.
Badgley, Chas. G.	White Bldg.	Seattle, Wash.
Bailey, Arthur A.	1610 Hewitt Ave.	Everett, Wash.
Bailey, Bernice E.	2725 Cedar St.	" "
Bailey, F. L.		La Conner, Wash.
*Bailey, Winona	1732 Fifteenth Ave.	Seattle, Wash.
Baird, Sadie E.	3016 Colby Ave.	Everett, Wash.
Baker, W. G.	2812 Colby Ave.	" "
*Baldwin, Dr. Margaret	23 W. Boston St.	Seattle, Wash.
*Baptie, H. May	1921 Third Ave. W.	" "
Barnes, Dr. S. D.	306 Arcade Bldg.	" "
Bathurst, Katharine	1704 25th Ave.	" "
Bayne, M. W.		Kirkland, Wash.
Beaton, Jessie	604 N. 44th St.	Seattle, Wash.
*Belt, Mrs. F. S.	414 16th Ave. N.	" "
*Belt, H. C.	414 16th Ave. N.	" "
Best, John A. Jr.	St. Anne Apts.	" "
Bigelow, Alida	1139 18th Ave. N.	Seattle, Wash.
Bird, Mrs. Ida M.		Monroe, Wash.
Bird, John D.		" "
Blanchard, J. A.	315 1st Ave. N.	Seattle, Wash.
Blanchard, Irene	315 21st Ave. N.	" "
*Blake, Fred J.	1510 1st Ave.	" "
*Blosser, J. A.		Snohomish, Wash.
Blough, Allie	1722 W. 59th St.	Seattle, Wash.
Bolton, Carrie		Chico, Wash.
Brayton, Annie	212 E. 80th St.	Seattle, Wash.
Brayton, Fannie E.	402 Sylvan St.	Bellingham, Wash.
Broesamle, Anna	1612 Boylston Ave.	Seattle, Wash.
Brown, Sidney	Waldorf Apts.	" "
Browning, Lena M.	1219 Cloverdale	" "
Burke, Hon. Thomas	1004 Boylston Ave. N.	" "

Burkhart, Mary	2711 Hoyt Ave.	Everett, Wash.
Burt, Will	Box 206, University Sta.	Seattle, Wash.
Burtis, Bennet H.	5249 University Blvd.	" "
Calkins, Eunice A.	524½ Broadway	Seattle, Wash.
*Cameron, Christine	201 C St.	Tacoma, Wash.
Carkeek, Arthur	427 E. Denny Way	Seattle, Wash.
Carter, Gertrude	621 Jackson St.	Portland, Ore.
Challacomb, N B.	2601 Hoyt St.	Everett, Wash.
Chalmers, D. Duncan	Hotel Kennedy	Seattle, Wash.
Chapman, E. L.	1811 8th Ave. W.	" "
Chatterton, H. I.	Y. M. C. A.	Everett, Wash.
Chesterman, Ethel		Sioux City, Iowa.
Church, Thos. J.	P.-I. Bldg.	Seattle, Wash.
City Editor	Post-Intelligencer	" "
City Editor	The Star	" "
City Editor	The Times	" "
City Editor	The Week-End	" "
Clark, Anabel	4731 15th Ave. N. E.	" "
Clark, C. G.	508 Melrose Ave.	" "
Clark, Mrs. C. G.	508 Melrose Ave.	" "
Clarke, Dorcas L.	2129 Rucker Ave.	Everett, Wash.
*Clark, Everett	2129 Rucker Ave.	" "
*Clark, Irving M.	402 Burke Bldg.	Seattle, Wash.
Clark, Dr. L. W.	304 Nor. B. & Tr. Co	" "
*Coenen, A. Margaret	3200 N. Union Ave	Tacoma, Wash.
Cole, Lucy K.	The Knickerbocker	Seattle, Wash.
Cole, Vinnie M.	2412 Baker Ave.	Everett, Wash.
Collins, Emma L.	702 Minor Ave.	Seattle, Wash.
Collins, J. F.	916 Third Ave.	" "
Comer, Wm. D.	Title Trust Co.	" "
Corbet, Darrah	618 Mutual Life Bldg.	" "
Corey, C. R.	4750 21st Ave. N. E.	" "
Cottrell, Bessie	324 18th Ave.	" "
Cox, Mary Virginia	1657 Bellevue Ave.	" "
Craven, A. J.	120 Garden St.	Bellingham, Wash.
Cresap, Trella Jane	The Chelsea	Seattle, Wash.
Crickmore, Mrs. Minnie M.	1133 33rd Ave. S.	" "
*Cruse, A. H.	606 Y. M. C. A.	" "
Culmer, Myrtle G.	1415 Boren Ave.	" "
Curtis, Asahel	627 Colman Bldg.	" "
Curtis, Mrs. Florence	1115 36th Ave.	" "
Dabney, Frank	618 1st Ave. W.	Seattle, Wash.
Daugherty, Rose	1460 20th Ave.	" "
Davidson, Dr. C. F.	755 Empire Bldg.	" "
Davis, Fidelia G.	City Engineer's Office	" "
Dayton, Clara A.	1317 Howell St.	" "
Dean, M. Ethel	Box 405	" "
De Graff, Lois	1505 E. Jefferson St.	" "
*Denman, A. H.	500 Nat. Bnk. of Com.	Tacoma, Wash.

Devereux, Mildred	2216 Hoyt Ave.	Everett, Wash.
Donoghue, Lucy	1122 13th Ave.	Seattle, Wash.
Dowling, Evaline	8 Bells Court	Everett, Wash.
Dummett, J. A.	309 Boylston Av. N.	Seattle, Wash.
Dunlap, Winnifred E.	422 Colman Bldg.	" "
*Eaton, Dr. Cora Smith	1629 14th Ave.	Seattle, Wash.
Ebersold, R. R.	3112 Rockefeller Ave.	Everett, Wash.
Eckert, Elmer H.	110 Blaine St.	Seattle, Wash.
Ederer, Arthur F.	812 Lowman Bldg.	" "
Egan, Blanche L.	1207 E. Howell St.	" "
Elmer, Maude V.	1712 Summit Ave.	" "
Emerson, G. D.	15 Beacon St.	Boston, Mass.
Epler, Frank	1233 7th Ave. W.	Seattle, Wash.
Epler, Mrs. Frank	1233 7th Ave. W.	" "
Epler, W. F.	333 1st Ave. W.	" "
Epler, Mrs. W. F.	333 1st Ave. W.	" "
Fahnestock, John N.	City Engineer's Office	Seattle, Wash.
Fairbrook, Lloyd F.	1521 Grand Ave.	Everett, Wash.
*Fargo, Lucile F.	1014 Madison St.	Seattle, Wash.
Farrer, Chas. M.	1624 8th Ave. W.	" "
Farrer, Peyton M.	508 Pioneer Bldg.	" "
Ferree, Nita J.	1415 Boren Ave.	" "
Field, Frederick C.	406 Yesler Way	" "
Flett, Prof. J. B.	107 N. Tacoma Ave.	Tacoma, Wash.
Fontron, Mabel	496 Arcade Bldg.	Seattle, Wash.
*Forsyth, C. E.	Box 105	Castle Rock, Wash.
Fox, Clare D.	The Chelsea	Seattle, Wash.
Franklin, Phil. A.	4042 Brooklyn Ave.	" "
Franklin, Will H.	4042 Brooklyn Ave.	" "
Fryer, Alice	The Madison	" "
Fuld, Frederick C.	406 Yesler Way	" "
*Fuller, H. A.	405 Colman Bldg.	" "
Furry, Mabel	174 Highland Drive	" "
Galt, Flora B.	1707 38th Ave.	Seattle, Wash.
Gardner, Mrs. N. W.	5981 Alki Pt., R. F. D.	" "
Garvin, Cora B.	115 Bellevue Ave. N.	" "
Gavett, Prof. Geo. I.	5252 16th Ave. N. E.	" "
Gibson, Emily E.	1111 14th Ave.	" "
Gibson, Lydia L.	620 Olympic Place	" "
Gilbreath, Rose	Hotel Rexmere, B'dw'y	" "
*Gleason, Chas. S.	638 Burke Bldg.	" "
*Gleason, Ruth	1631 6th Ave. W.	" "
Gordan, Elizabeth	Box 43	Port Orchard, Wash.
*Gorham, Kathleen	612 Malden Ave.	Seattle, Wash.
*Gorham, Wm. H.	612 Malden Ave.	" "
*Gorton, Fred Q.	4007 Point St.	" "
Gould, Jasper M.	3201 Pine St.	Everett, Wash.
*Gracie, Helen	2402 E. Union St.	Seattle, Wash.
Grant, Geo. D.	3516 Meridian Ave.	" "

*Hagman, Reuben J.	2444 Harvard Ave. N.	Seattle, Wash.
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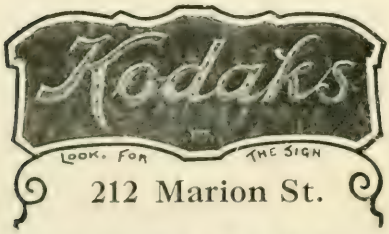

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MT. ADAMS—
by A. H. Denman
and A. H. Barnes

North side of Mt. Adams from above Two Lakes near the summit of the Cascade Mts. Lava Glacier in the center, Lyman Glacier on the left, Adams Glacier to the right beyond the cleaver. The Mountaineers made the ascent up the cleaver between the Adams and Lava Glaciers.

Greetings:

From the
Honorable James Bryce—
British Ambassador
to the
United States

Salutation:

It is good news to hear of
the growing love of the mountains
and the increasing habit of
climbing and wandering
among them, which the members
of your Mountaineers Society
bear witness. You are fortu-
nate in having in the States
of Washington Oregon & California
by far the noblest mountain
scenery in the United States, the
only glaciers, the most superb
forests a wealth of beauty

still and hardly explored in
the lakes and valleys of the
romantic region of the Cascade
Range. As an old member of
the British Alpine Club, I
heartily wish you success, and
can assure you that as there is
nothing healthier for the body, so
there is nothing more inspiring
for the mind and soul than
life among the mountains and
communion with their spirit

— James Bryce

The Mountaineer

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NOTES ON ADAMS AND ST. HELENS

Prof. Henry Landes

Mt. Adams

For a number of years I have been an ardent admirer of Mt. Adams, but always at long range. Not until nearly the close of the summer that is just past did I have the opportunity of a more intimate acquaintance. In this instance distance may have lent enchantment, but familiarity certainly bred respect and not contempt. In coming up the Yakima valley by train, I have always sat by the window, getting every possible glimpse of the beautiful and symmetrical mountain as it rose grandly at times above the gray and bare hills of the foreground. Looked at from a a thousand vantage points to the eastward, the hoary-headed old volcano is a conspicuous landmark on the western horizon. It rises head and shoulders above the labyrinth of mountains which hedge it in on the

Photograph by H. V. Abel

A SECTION OF ADAMS GLACIER

west and north. Its majestic pile, with its seeming ambition of forming a connecting link between the earth and the sky, is at once a source of awe and inspiration to the mountaineer.

On a clear day the view from the top of Adams is well worth the climb. In ascending the mountain from the south it is not long before Mt. Hood appears as a very near neighbor. In a little while, when the beautiful dome of Hood appears at its best, one is delighted to find that in the same view Jefferson has come prominently into the range of vision, to the left of Hood and 50 miles beyond. A little later, when the deeper haze of the lowlands is left behind, and more distant views become possible, the Sisters are seen just to the left of Jefferson and nearly 40 miles farther south. From the summit of Adams the cone of St. Helens appears to fine advantage in its symmetry and regularity. It seems near enough to make one feel that he could almost hit it with a snow-ball. Some of the details of its small glaciers and its late lava flows can be made out with the aid of a field glass. Rainier, heavier snow-capped than the others, is conspicuous 50 miles away toward the northern horizon. Between Adams and Rainier the maze of mountains is so complex that the eye tires in its effort to untangle the multitude of peaks and ridges and decipher the leading drainage lines. Looking eastward the ridges and low divides melt away in a receding plain that is finally lost in the haze of the far distant horizon.

Although somewhat removed from the main arteries of travel, Adams yet lies fairly convenient for anyone who would make its close acquaintance. It is occasionally visited by parties with pack horses coming from the northward, or more often from the Yakima valley which lies to the eastward. A trail which has just been completed makes it accessible from the westward, up the Lewis River from the neighborhood of St. Helens. The most common direction of approach is from the south, following the White Salmon valley for its entire length. The town of White Salmon, where the stream of that name joins the Columbia, is easily accessible by either boat or train. A good road, traversed daily by stages and automobiles, extends for 29 miles up the White Salmon valley to Guler. At Guler there is a good hotel where one may stop while exploring the lava cones and the country about the foot of the mountain, or while making his plans for the mountain ascent. From Guler

a trail 14 miles or so in length leads to a temporary camp on the southern slope of the mountain. The trail all the way passes through an open forest of pine and tamarack, and rises to a height of about 4000 feet where a camp for the night is pitched by one of the ice-cold springs that issues from the mountain side.

The ascent of Adams is probably easiest made from the south. From a temporary camp at 4000 feet the trip to the top and back is readily made in a day. The timber line is passed at about 6000 feet and the foot of the first glacier is reached at 7500 feet. It is possible to go substantially all of the way

Photograph by A. H. Denman

INTERIOR OF LAVA CAVE

over the rocks alone, or one can go much of the way over the snow fields and glaciers if he likes. The bare slopes are made up almost exclusively of broken rock which have been produced by glaciers or by the disrupting effects of extreme temperatures. The angular rock fragments are piled at steep angles and they often give way under a person's weight, so that some caution is necessary in picking the proper route. On the whole Mt. Adams offers practically no serious obstacles to the climber and its ascent is made with as much or more ease and safety than is true of any other of our great snow caps.

To the geologist Adams is of prime interest. It stands as a great volcano in a sea of vulcanism. The volcanic fires at its base have been lighted so often that a great cone has been built up which has been but little ravaged by time. The cone is compound in character and the later eruptions have not occurred from the top but from openings upon different sides of the mountain. One of the last outbreaks took place on the south side of the cone within about 4000 feet of the top. A great flow, or series of flows, of lava poured out here, making a distinct shoulder to the mountain. The surface of this lava is black, ropy, fresh-looking, and with virtually no soil upon it. It extends down into the forest where it is covered with a very scant and stunted tree growth, with little or no underbrush.

Looking south and west from Adams one sees a number of neighboring cones, usually low and tree-covered. They may be connected by under-ground pipes or conduits with the giant that stands beside them, or they may all have independent roots reaching down to the molten magma below the earth's crust. There are four or five low cones nearly in a row which extend from the south side of Adams toward the Columbia River. Another more prominent cone, with characteristic outlines, is located about five miles west of Guler. Altogether it is an interesting field for the student of vulcanism, and one worthy of serious study.

The eruptions from Adams have produced both lavas and pyroclastics, the former greatly predominating. The lavas have been mostly basalt, with a minor quantity of andesite. The pyroclastics represent ashes, cinders, pumice, and bombs that have been produced as the result of violent explosions. The lavas have been outpoured usually in great quantities so that to-day they are partly crystalline or porphyritic in their character. The basalt is black in color and as a rule compact and free from steam holes. The andesite is gray in color, fine grained, and prone to break up in broad thin slabs. No well-defined or marked craters are noted on the top of Adams, unless perchance they are to-day filled with snow. It is not likely that any except possibly a small crater or two would be exposed if the snows of the two prominent snow-fields at the summit should waste away.

The lava eruptions from Adams have been independent of the great basalt flows which characterize the country to the eastward. The latter have come up through great fissures rather than through tubes or other circular openings. Such a method of origin gives rise to great sheets which are piled horizontally one upon another. This horizontal position is always retained unless subsequently the sheets are arched and folded in the general process of mountain building.

Ever since the first explorers traversed the upper White Salmon valley, the lava cones about Trout Lake and Guler have been known. They occur for several miles lengthwise of the valley and some have been produced in one of the later lava flows which has come from the south side of the great mountain. The highways pass above them and the traveler is made aware of their presence beneath him by the deep rumbling sound which arises when a vehicle passes over their roofs. The roofs are sometimes arched and slightly broken so that entrances may be effected into the caves beneath. One of the best known caves is located 1½ miles southwest of Guler. An entrance to the cave is easily possible through a hole in the roof at one point, and the descent to the floor made by means of a ladder. It is the custom to make torches of sticks of pine, filled with pitch, and bound together with wire. Such torches light up the cave sufficiently to see its size, shape, and other characteristics. It is about ¾ of a mile in length, from 30 to 40 feet in width, and measures about the same from floor to roof. The floor is fairly level, except where large blocks of rock have fallen down from the roof; the sides are sometimes perpendicular, but usually lean outward somewhat from the center; the roof has a low arch, sometimes almost flat. The lava of the floor is ropy, jagged, and rough and shows strong evidences of its once molten character. The lava of the sides is smoother and shows usually a curious ribbed effect like the surface of a wash-board.

From the analogy with the occurrence of lava caves elsewhere, it seems that the last sheet of lava flowed over a land surface that was very uneven and broken. It was doubtless roughened by many small stream channels which were winding and irregular, but usually V-shaped in cross-section. A fresh flow of lava, after moving over such a surface, would cool the slowest of all in the heart of the former winding ravines, where

the new lava was thickest and where radiation would be slowest. In the process of cooling there would come a time when the lava occupying an old ravine would cool and stick to the walls, as well as form an arch of cooled and hardened rock extending from one wall of the ravine to the other. The central mass of lava, yet plastic enough to flow, would continue to move on, leaving in its wake a long, winding, irregular tube or cylindrical cavern now known as a lava cave. It is easily seen that caves produced in this way would vary greatly in position, shape, and size, depending upon the varying peculiarities of the former valleys. Some of the caves are so near the surface that freezing temperatures prevail in them during the winter and ice formed at such times may not all be melted during the following summer. The water in the winter sometimes seeps through the roof and icicles form like those on the eaves of a house. The icicles may grow to giant proportions and extend to the floor, assuming shapes like the larger stalactites and stalagmites in limestone caves.

The glaciers on Adams look like pigmies when compared with those on Rainier, or even Baker. The great snow-fields or feeding grounds at the top are not large, hence the glaciers have no great length. Only the largest reach the foot of the mountain, while the others are perched upon the flanks of the cone. That the glaciers were once of much greater length is readily shown by the old terminal and recessional moraines that now lie far beyond the present melting points.

Mt. St. Helens

St. Helens is the westernmost and the lowest of the five great volcanoes of Washington. It is easily visible from many view points among the lowlands that extend from the southern tip of Puget Sound to the Columbia River. It has a cone of rare symmetry and beauty, and is always dazzling snow-white, except for a few weeks at the close of summer. There are no very high mountains in its vicinity and the snow-locks of St. Helens always afford a striking contrast to the dark green mountain ridges which fit like a picture frame around it.

The two common routes of ascent of the mountain are up the southern and northern slopes. The southern slope is not quite so steep as the northern one but the route is a little

longer. In ascending from the south it is necessary to go up the North Fork of Lewis river to a point opposite the mountain and then travel for several miles before beginning the actual ascent. The great majority of visitors to the mountain leave the railway at Castle Rock and go by a good highway 46 miles to a camp at Spirit Lake. The trip may be made by team in a day, or by an automobile in a shorter time. During the summer good accommodations may be had at Spirit Lake, which is at the very foot of the mountain on the north side.

In making the ascent from Spirit Lake the trail leads through the forest for three miles, until the real foot of the mountain is reached, which coincides rather closely with the timber line. In other words the sparse growth of timber fails about the point where the steep climbing begins. The park-like nature of the forest, as timberline is approached, gives a touch of rare beauty to the region. A circuit of the whole mountain at about timberline or a little below looks very inviting and could probably be made without much difficulty.

St. Helens in most respects is a typical volcano, and it affords an excellent opportunity to see and study vulcanism. Its eruptions seem to have all been approximately from one opening and hence the symmetry of the cone is conspicuous. There are many evidences of very late eruptions and erosion has made but little progress in the destruction of the mountain.

The erupted matter seems to be confined almost wholly to two classes of material; viz., lava and pumice. The lava is far and away in excess over the pumice and makes up the great bulk of the cone. The lava rock is mainly andesite, with occasionally some basalt. The andesite usually contains some small crystals and varies in color from gray to red. The basalt is always black, except for the small white crystals of feldspar which may often be seen with the naked eye. It was not until late in the history of the volcano that explosive action gave rise to large amounts of pumice which were ejected from the crater. At the present time the northern slopes of St. Helens are covered with fragments of pumice which have accumulated to the depth of many feet. In ascending the mountain on this side the route for much of the way is over the soft pumice rock which makes the climbing very laborious. In the ejection of the pumice much of it was thrown high in the air

and carried by the winds to points rather far removed from the mountain. It has been found at points more than 20 miles away on the north and the west.

One of the most interesting incidents connected with the lava eruptions was the fact that as the lava arose through the tube or conduit in the earth's crust, it broke off many fragments of the solid rock along the way and brought these to the surface. In other words, the rising lava broke off and engulfed much of the solid rock with which it came in contact on its way to the surface and such rock is now generally disseminated through the erupted material. All over the northwestern slope of the mountain the lava blocks, large and small, have many angular fragments of some other rock contained within them. The included rock at first sight seems to be granite, but in reality it is syenite. It is rather coarsely crystalline and because of its mottled color it appears as conspicuous inclusions in the lava blocks. The syenite fragments occur in all sizes and are always angular in outline. The lava was plastic enough to completely engulf the blocks of syenite and yet not hot enough to change their character and appearance. The volcano, St. Helens, seems to be situated upon a floor or platform of syenite. This basal rock is hidden by the spreading cone and its presence would not be readily detected if blocks from it had not been torn off and brought to the surface by the rising lava. The original conduit must have been in the syenite and through this throat or tube the molten rock escaped to the surface in the earliest stages of the volcano's history. It is probable that each succeeding eruption extended the walls of the conduit by breaking off portions of the syenite and hence securing the inclusions which we now find abundantly in the lava blocks.

The glaciers of Mt. St. Helens are small. It is not probable that any one of them exceeds a length of one and one-half miles. They are narrow streams of ice, largely buried by debris near their melting ends, and giving rise to small rivulets only. The mountain is not high enough to receive a great snow-fall and hence there is an absence of the necessary snow fields which serve as feeding grounds for glaciers of maximum size. After all, the chief glory of St. Helens is in its capacity of a sleeping volcano and not as a center of an important glacial system.

MOUNT ADAMS

EDMOND S. MEANY

I

How solid, broad, and buttressed thy base of rocks doth rest
On earth's great primal platform beneath the sands and clays,
To hold secure thy shoulders, thy high and gleaming crest,
Serene in storm or sunshine through Time's eternal days!
Wild winds may whirl,
Cold snowdrifts swirl,
And thunders hurl
Their blazing spears to rend and blast;
Thy sides may shake,
The wide plains quake,
But, lo! thy deep-set granite holds thee firm and fast.

II

These rock-hewn caverns,
Thy vaulted taverns,
Where Arctic sprites in revels hover!
Wee knight may prance
With lifted lance,
His rival drive to darkling cover,
And then perchance,
In languid dance,
Demurely seeks a frost carved gem for elfin lover.

III

Thy lakes, thy flower-strewn gardens, all lead to fields of snow,
Lead up until we listen for star-led singing choir.
We pause on pendent glacier, a river's frozen flow,
Or climb on rigid lava, on hardened ancient fire.
Ah, transcendent glow
On ice, on ancient fire!
Who would dare to measure
Our mountain's lavish treasure,
When fingers, giant fingers, aye point us higher, higher?

IV

Attained at last thy summit, thy crown above the cloud;
We stand in awe;
Thy altar's law
Condemns the soul that will not still,
With spirit bowed,
However proud,
And let God's glory every trembling fibre thrill.

EDMOND S. MEANY.

Written on Mt. Adams outing at camp

Photograph by Fred G. Gorton

KILLING CREEK AND SNOW BRIDGE. THE ASCENT OF MT. ADAMS WAS MADE FROM THIS CAMP.

THE MT. ADAMS OUTING OF 1911

Winona Bailey

To walk from Mt. Rainier to the Columbia river, one-third the distance across the State of Washington, along the great divide between the eastern and western sections, and to scale the second highest peak in the state, was the object the Mountaineers had set before them for the summer of 1911. To do this required twenty-one days of travel, and sixteen different camps scattered along a total distance of one hundred and sixty-two miles.

Photograph by H. A. Fuller

COWLITZ FERRY

The party left Seattle at seven o'clock on the morning of July 15 by special car for Ashford near the entrance of Rainier National Park. A pack train of thirty horses had brought supplies north from Glenwood under the direction of Mr. Albertson of the outing committee and met us at Longmire Springs. While the walk began at Ashford and the first camp was made eleven miles from there at Kautz Fork, it was not until all the dunnage had been carried across the rushing Nisqually on a foot log, and loaded on the waiting horses, that the real trip began.

Then with a thrill of joy to be once more with the peaks and the running waters, we entered upon the trail, the trail that led sometimes through deep forest, moss-carpeted, sometimes along slopes sparsely forested with many a view into depths below or across to wooded hillsides; now over high ridges, along their sharp edges, or across great snow-fields; often down and down only to climb again some new height.

It led through the great spectral forest, the wide table-land, where once a mighty living forest stood, but now there are only silvery trunks and ghost-like arms with dust and ashes underneath, a region well-night majestic in its desolation; or through the open forest of the yellow pine and larch, with the strawberry patches in the grass, over a forest-grown lava flow until it dropped down between the last green hills, along the last clear trout stream to the rolling waters of the Columbia.

And the camps were quite as varied as the trails, now beside a glacial river, then along a crystal stream, in among the fallen timber, in the flowers, under trees, or in the open, by a lake or near a hilltop, where no man had camped before us, where the Indian had his tepee, or the ranger and the rancher built a cabin and then left it.

The early part of the trip led east in the upper part of the Cowlitz valley along the old Yakima Indian trail. Successive camps were made at Bear Prairie near the Tatoosh range at the head of Skate Creek, on the banks of the Cowlitz, at the Clear Fork and in Cowlitz Pass. The Cowlitz, where we crossed it near Lewis, is a broad, smooth, gray river, one of the largest glacial streams in the state. It is crossed by a ferry with overhead cable where free rides furnished an evening's amusement.

Cowlitz Pass, unlike most mountain passes, covers a large

Photograph by H. B. Hinman

TIETON CREEK

area, about five square miles, a park-like country covered with grass and flowers and clumps of firs and many a little lake left by the melting snow banks. Here Mr. Bennett, who had left the pack train some days earlier to scout the trip from Goat Rock to the pass, met us, and our company of sixty-four was complete. Here too, began that fine series of views. From every vantage point the eye turned back to Mt. Rainier rising in radiant majesty to the north; the higher we climbed the higher rose the mountain, the more mighty its proportions. The Tatoosh range shrank to foot hills, the Sluiskins scarcely equalled them. From west of Paradise valley and the Nisqually glacier we could see across the Cowlitz to little Tahoma and the White glacier, and could trace on the skyline very nearly the course the Mountaineers took in 1909, while the regular tourist route to the summit lay exposed as on a map. Soon Mt. Adams in the other direction began to lift its great white dome above Old Snowy and the Goat Rocks and when we reached the ridge of Hogback Mountain three days later the shining cone of St. Helens stood forth in the west, and from that time on we traveled within a vast triangle marked at its corners by three towering isolated peaks. For fourteen days we walked and camped at an average elevation of one mile above the sea.

At Cowlitz Pass we turned directly south. Thus far the trail had been clear, a mere introduction to the journey, but of the sixty miles between the pass and Mt. Adams nearly forty miles lay through pathless country and was covered by sending men ahead to scout and blaze the way, for the trails shown on the map were either fragmentary or had become obliterated.

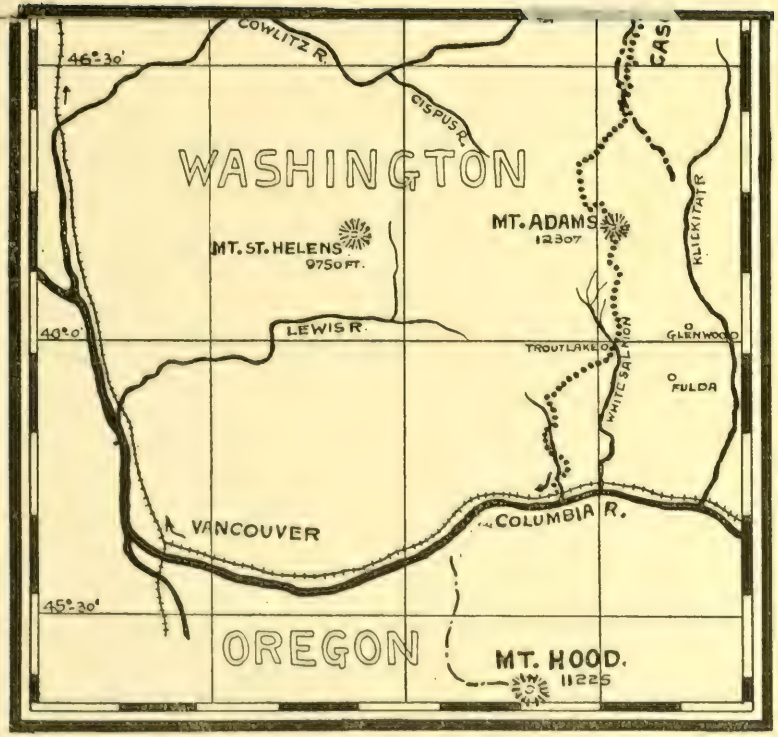
Twice we were allowed an unexpected day of rest, once at Milridge Creek and once at Shoe Lake, partly to give time for careful trail work, and partly owing to the serious illness of Paul Kuhnhausen, one of the packers. For six days he lay beside the stream at Milridge Creek protected by a tent of fir boughs, and nursed by willing hands, for men of the party stayed behind and watched beside him until friends came with Dr. La Motte, our comrade of the earlier part of the trip. Then the sick man was carried out on a stretcher to his brother's home at Lewis and later made a complete recovery.

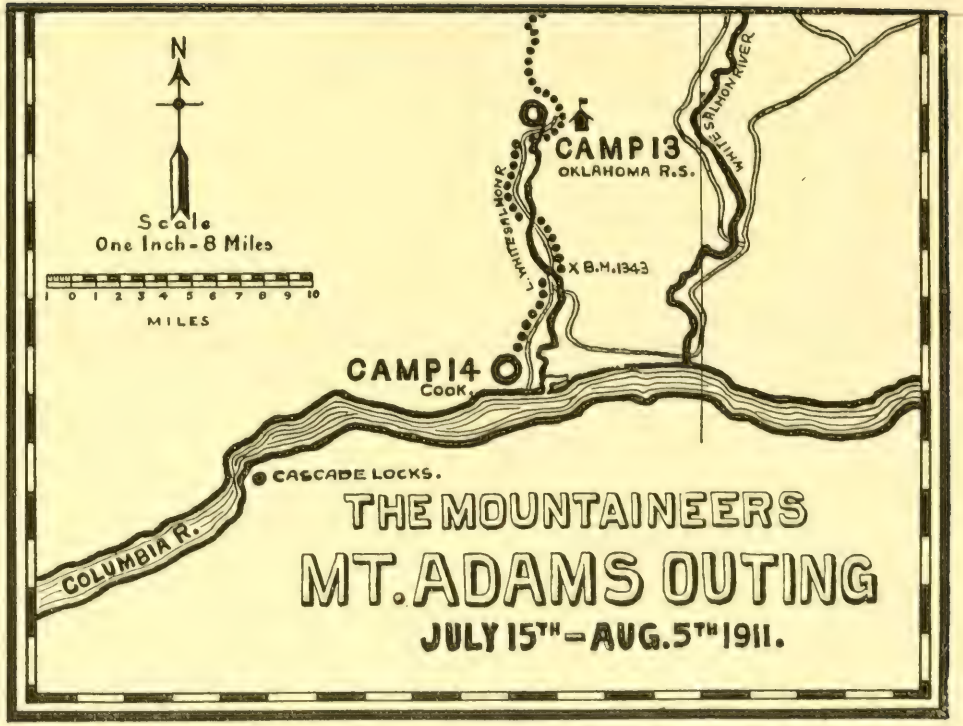
It was up-hill work from Milridge Creek to the Hogback, but once up, the best of all the trip stretched out before us. For the first time the great triangle of peaks became complete and everywhere as far as eye could reach in infinite variety of contour stretched the mountains of the Cascade Range, while just ahead Goat Rocks seemed struggling to conceal Mt. Adams. Going over onto the eastern slope of the Hogback the new members had their first snow work and learned what switch-back meant and the order, "Alpen-stock above you."

Photograph by Chas. S. Gleason
SHOE LAKE

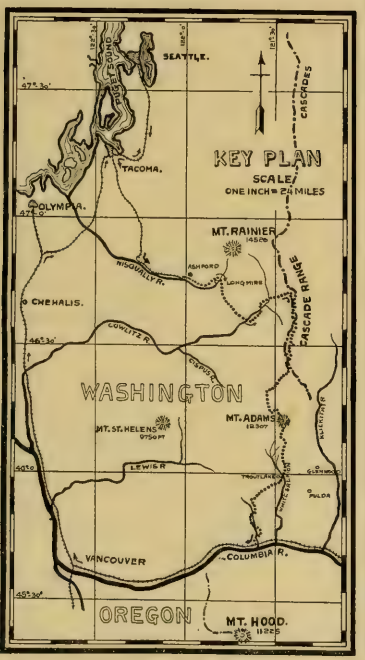
Just below the Hogback, 6200 feet above sea level, in a crater-like depression, nestles Shoe Lake, destined to be our home for three nights and two days. A most delightful camp it proved, sheltered as it was from cold winds, with good grazing for the horses, plenty of room and water and sunshine for the long deferred laundry, and a fine bathing pool beyond the wooded point. At sunset and at sunrise, too, an invigorating climb of twenty minutes put one where he left the world and the kingdoms of it were at his feet. Beyond the deep chasms of the Tieton rose Goat Rocks and somewhere on those mountains was a cache, provisions for many days to come, but there was no trail across. At a general assembly it was thought best to send down to Russell's ranch for fresh meat and information about trails. Leader Belt and Dr. Hinman made the thirty-mile trip and found David McColl, a Scotch lad and sheep-herder, who said he could take the horses to Goat Rocks without descending deep into the valley of the Tieton.

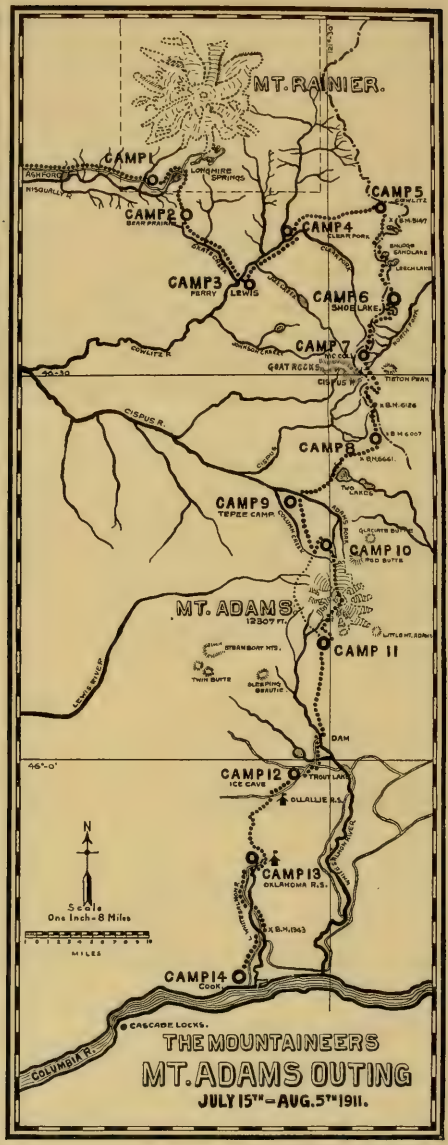
A hard day was expected on leaving Shoe Lake and each horse in the pack train had a leader, but the freshly blazed trail proved one of the most delightful of the trip. Keeping on the high ground of the divide, between the North Fork of the Tieton and the Clear Fork of the Cowlitz, we reached in mid-afternoon a charming mountain meadow bounded on one





Done by Emil Krahnen and Arthur Nation





Done by Emil Krahnen and Arthur Nation

side by a glacial torrent dashing out from the gorge of a miniature box canyon. A little frequented spot it appeared to be. Before we left, by unanimous vote and with much enthusiasm, it was named McColl Basin, after our new Scotch friend who had led us to it.

We were now on the north slope of Goat Rocks and, to reach the pass above, the horses would have to cross a glacier, so volunteers were again called for to lead them. They took a somewhat different route from the rest of the party and at noon as we lunched on an opposite hillside we saw in the

Photograph by Carlyle Ellis

McCOLL'S BASIN

distance the long thin line of animals and their leaders winding their zig-zag course now up along the side of Tieton glacier, then back and forth on a seemingly perpendicular mountain side. Sometimes they would stop for such a long time that we feared the trail had proved too dangerous, but again creeping slowly on they were lost to view over the pass before the rest of the party were well upon the snow slope. Boots had fortunately been well calked the night before, for the slope was steep and steps had to be made carefully. In company formation with Leader Belt ahead, a lieutenant in front of each company of eight or nine and a captain behind to watch and give instructions, we moved slowly across the wide snow-field

with the strange rocky pinnacles above, the smooth, brilliantly colored slopes of Tieton Peak ahead, and the valley dropping steep away below. The pass reached at 7000 feet, another field of soft snow in which we sank knee-deep took us into the valley of the South Fork of the Tieton and we began to look for Surprise Lake, which we were told was to be our camping-ground for the night. Perhaps there is a Surprise Lake, but our surprise was to come suddenly, near dusk, upon a camp-fire with Mr. Carr beside it and a bountiful hot dinner, to which we did speedy tribute, stopping not to remove grease-paint, black, white, or red. Here, on a bleak hillside, a place where only sheep could find subsistence, was the cache of six-teen hundred pounds of food left there a few weeks earlier by the packers.

A steep climb of eight hundred feet brought us to a ridge overlooking the magnificent cirque at the head of the Klickitat. Skirting this we found ourselves again below the sharp scaling spires of the Goat Rocks. This passing of the south side and the climb the day before on the north furnished our only close acquaintance with this interesting group of mountains, a region little visited and well worth a summer's outing. As we lunched on the rocks before crossing to western slopes near Cispus Pass Mr. Bertschi, forest ranger of that district, met us and for four days was our friend and adviser, guiding by shorter routes to the great mountain, through the region of the ghost trees. Among them a little spring like an oasis in the desert furnished site for a ranger's cabin known as Short Trail Camp and here we spent the night. Next camp was at the Indian tepee on the vast table-land that slopes from Adams on the north and west. Here the Indian, perhaps for ages, has camped in huckleberry season beside a clear, cold stream under the very shadow of the mountain.

On the fifteenth day at noon, we reached the mountain camp, a typical little meadow-basin on Killing Creek on the north side of Mt. Adams at 6000 feet. Above was the lava ridge on which we were to climb between the Adams and the Lava glaciers. The commissary stream came leaping down in white spray under a thin snow-bridge, turned a right angle and dashed on to the valleys. On every hand were tiny lakelets furnishing fine laundry and swimming pools. Trees fringed

the glade except towards the mountain, where snow banks lined the basin rim, a site that rivalled Buck Creek Pass, the permanent camp of the Glacier Peak outing.

The afternoon was spent in preparations for the long anticipated circus, the stupendous spectacle that formed the climax of the fun of camp-fire programs. The evening entertainments of this outing were somewhat curtailed because of length of march and lack of time in camp, but who that heard them will ever forget the tales that were told, the instructive

Photograph by Fred Q. Gorton

CAMP IN THE GHOST FOREST

talks on photographs and stars, the history, the legends, and the verses of our president, the orchestra of our musical brethren, the songs that shortened the miles or relieved a moment of perplexity? Every Sunday there was a beautiful, restful service of worship with pulpit and sounding board of alpine firs and pews on grassy slopes.

It was decided when the climb was made to break camp at Killing Creek, send all supplies and dunnage by pack train around the western flank with any who did not care to go with the climbers over the mountain. On Monday, July 31, the rising call sounded before daylight and with hasty packing of dunnage and still hastier breakfast the whistle blew and fifty-

two people lined up ready for the start. At four-fifty we marched out of camp. In nine hours and twenty minutes we stood on the summit of Mt. Adams, 12,307 feet above the sea. No difficulties were encountered at any point. For nearly five thousand feet the climb was on lava rock affording good footing, then almost a mile across a snow-field of easy grade to within three hundred feet of the top where the snow piled steep and dome-like. The day was clear only in the upper regions. Below, a smoky haze filled all the valleys and hid the lesser peaks. The cones of Mt. Rainier and Mt. St. Helens were clear above it all day, and when the top was reached Mt. Hood appeared in the southern heavens, a while peak with no apparent base upon the earth.

The time on top was short. After the usual picture-taking by companies and groups, the flag was unfurled and one verse of America sung and with a circle around the east end to look down on the head of the great Klickitat Glacier, we dropped over the south side to find the Mazama record box chained to a little rocky ledge. To open this, examine its assortment of cards and papers, and then sign the record book took all too long, and the leader's face grew anxious as he announced the hour and the possible distance from camp. The descent on the south was rock-work; an occasional pocket of snow gave a brief rest from the rocks, but we were too far to the west for the fine coasting slopes, and the best sliding we had was a sort of bump-the-bumps performance. Sharp eyes kept a look-out for the pack train or the friendly smoke of the camp-fire we knew would be built somewhere below. None appeared. At six o'clock a trail was reached that soon led into another much traveled trail showing the tracks of many horses. Dark coming on seemed to double the miles, but at nine a cheerful whistle announced a friend with the message, "Camp only half a mile away." There a hot dinner was waiting, and hands ready to serve it. The members of the party who had gone around the west side had not only walked nearly twenty miles over hard trail but had selected a camping spot for everybody and carried each one's dunnage to it. Never were conquerors more warmly welcomed, never did they find more preparations for their comfort. This place was Morrison Creek ranger's station. Next day we rested there, and the report of the climb was sent out to the papers.

Plate XXV.

Photograph by Charles Albertson

INDIAN TEPEE CAMP

Plate XXVI.

Photograph by Charles Albertson

MOUNTAINEERS ON A STEEP SLOPE ABOUT FIFTY FEET BELOW THE SUMMIT OF MT. ADAMS

Plate IV.

Photograph by H. B. HINMAN

FIRST BASIN IN GOAT ROCKS AFTER LEAVING McCOLL'S BASIN

Plate V.

Photograph by C. R. Corey

THE PACK TRAIN CROSSING LAVA GLACIER ON TRIP NORTH.

The following day Miss Lulie Nettleton, Mr. Gorton and Mr. Bennett made a second climb of the mountain, leaving Morrison Creek camp at four fifty-five, following the even snow slopes of the south side and reaching the summit at eleven. They spent two hours on top, then coasting most of the way, came down more than five thousand feet in forty-five minutes, returned to our camp of the night before for an hour's rest and joined the main party at Trout Lake thirteen miles farther on, coming in just as camp-fire was over.

Camp was three miles out from the settlement at Trout Lake, in a beautiful grove of pine and larch in the lava cave region. The largest cave visited appeared from the surface as a great hole in a heap of rocks. Two ladders led down into it and then with the help of pitch pine knots, we followed over sharp rocks a vaulted passage wide and high for several hundred feet to where it branched into smaller archways. This region is full of caves which seem like great bubbles in a stream of lava that once flowed down from Mt. Adams to the Columbia river. In the vicinity of our camp another smaller cave was found and explored and it was said two hundred others had been counted. So numerous are they and their openings so hidden in the grass and rocks that a horseback rider at night is in danger. Water has seeped into some and frozen into great pipe-organ columns or stalactites and stalagmites of ice that the heat of summer never overcomes.

The trail from the ice cave to Oklahoma ranger's station, where the next night's halt was made, was one recently built and led across a ridge into the valley of the Little White Salmon through beautiful forests of white pine and fir. The milder character of the country made the trip of the last few days seem more like local walks than the real mountaineering of the summer's outing. By this time, too, our company was much reduced because a number had gone home early from Trout Lake.

The last day the trail widened into the road, the foot log into the strong bridge, farm houses were passed at intervals until finally the whistle of a locomotive was heard and we knew the solitude of the hills was ours no more. At a sharp bend in the road, high on the hillside we caught the first glimpse of the mighty Columbia. A last night was spent on its banks,

and the next day a marvelous ride on its waters, through the locks, past the rapids, past the bridge of the gods, and the numerous cascades, formed a fitting climax to a most successful outing.

MEMBERS OF THE PARTY

*H. V. Abel, Lieut. Co. E
†*Chas. Albertson, Member of Staff
†*E. W. Allen, Capt. Co. A
Bernice E. Bailey
*Winona Bailey
†*H. May Baptie
*Katherine Bathurst
*H. C. Belt, Leader
*Mrs. H. C. Belt
*A. H. Brackett, Capt. Co. D
†**Prof. H. B. Bennett, Member of Staff
*Hazel Burroughs
*Crissie Cameron
†Linda M. Coleman
†*Prof. C. R. Corey, Lieut. Co. B
*Fidelia Davis
*A. H. Denman
L. Mabel Dufford
*Carlyle Ellis
*Helen Ericson
H. A. Fuller
*Mabel Furry
†*Chas. S. Gleason, Capt. Co. B
*Ruth Gleason
*W. H. Gorham, Capt. Co. F
*Kathleen Gorham
†**F. Q. Gorton, Member of Staff
*R. J. Hageman, Lieut. Co. F
†*Mary L. Hard
*H. H. Hastings, Jr., Lieut. Co. A
*Dr. H. B. Hinman, Capt. Co. E
*Mrs. H. B. Hinman
*Evelyn Irish
*Edith Jackson
†*Nancy E. Jones
*Emil Krahnen, Lieut. Co. C
Dr. La Motte (to Lewis only)
Mrs. La Motte (to Lewis only)
*Adna W. Leonard, D. D.
Anna Liverson
†*Lydia E. Lovering
*Winifred MacFarland
Vida Mathews
*Prof. E. S. Meany
*Prof. R. E. Moritz
†*Lulie Nettleton
Anna Newman
*Mabel Odell
*Mary Paschall
Prof. Otto Patzer
*Roger Payne
Frank Preston
*Stella Scholes
*Josephine Scholes
†Alma Shurtz
*A. Hermine Stauber
†*Gertrude I. Streator
*E. K. Triol, Lieut. Co. D
*R. Weller
*H. L. Willis, Capt. Co. C
Mrs. H. L. Willis
Margaret Willis
*H. E. Wilson
†*Clara A. Worthington
*Geo. E. Wright, Member of Staff
Dr. Martha Wyman
†Robert Carr, Chef
*W. C. Scroll, Assistant
*Crawford Allen, Assistant

*Indicates ascent of Mt. Adams.
†Indicates ascent of Mt. Hood.

Photograph by Chas. S. Gleason

ON THE SUMMIT

MOUNTAIN LUPINE

EDMOND S. MEANY

Blue of the sea, blue of the sky,
Blue of the glacier's deep!
O, wine of the winds where free eagles fly,
I come to thy home, blue lupine, I leap.

Blue of the sea, blue of the sky,
Blue of the glacier's deep!
O, flowers where the snows carressingly lie
For aye with the stars companionship keep.

AN ASCENT OF MT. HOOD BY MOUNTAINEERS

Charles S. Gleason

The prospectus of the Mountaineers' annual outing for 1911 to Mt. Adams, the Goat Rocks, and the Columbia river stated that the company would embark for the trip down the river at a point nearly opposite Hood River, the starting point for climbing Mt. Hood, and that a party might be organized for that purpose.

The thought of climbing two mountains, each over 11,000 feet high, in one season was fascinating. Along the trail and around the camp-fires from Ashford to Killing Creek camp on the shoulder of Mt. Adams, eager questions were heard concerning the length and difficulty of the climb.

The virus was working. When the summit of Mt. Adams was reached and the eyes sweeping the horizon above the clouds that filled the valleys, beheld in the north the massive pile of Rainier and in the west the rounded cone of St. Helens and, turning south and looking across fifty miles of rolling vapor, rested upon the sharp cross of Oregon's pride, Mt. Hood itself, the disease became epidemic.

By the time the company reached the Columbia a party of eighteen, thirteen of whom had climbed Mt. Adams, was organized for the Mt. Hood trip. A leader was chosen, a commissary and a transportation committee selected, Carr engaged to do the cooking, and funds collected pro rata and placed in the hands of a treasurer to make the paying of bills as painless as possible.

The transportation committee went to Hood River on the boat Friday afternoon, August 4, to find a camping place and arrange for a boat to meet the North Bank train at Underwood.

After dinner the last camp-fire was held, Auld Lang Syne sung, good-by said and at 8:30 we took the train for Underwood with our dunnage bags, commissary supplies and cooking outfit. By midnight we were in our sleeping bags on the sand-spit in front of Hood River.

Plate VI

Photograph by Charles S. Gleason.

MT. HOOD (11,225 FT.)

Plate VII.

Photograph by Charles S. Gleason.

SUMMIT OF MT. HOOD.

Rising call was sounded early Saturday morning and breakfast was over in time to give the ladies a chance to do their first shopping in three weeks before the train left for Parkdale, twenty-three miles up the Hood river valley.

Lunch was served from our own supplies at Parkdale, elevation 1800 feet, and at one o'clock we started on a twelve-mile hike along the wagon road up the north side of Mt. Hood.

It was hot and the road was dusty and a steady uphill pull, but three weeks spent in the open and one hundred and seventy-five miles of tramping mountain trails had made the party "fit." The first five miles was among the fruit farms of the upper valley, the last seven through dense pine forest to camp about 600 feet below timber line near Cloud Cap Inn, a typical summer resort hotel at an elevation of 5800 feet.

Sunday was spent resting for the climb on the morrow, studying the route up the mountain, photographing the peak with and without a cloudcap, talking with Miller, the mountain guide who frankly admitted that a party of Mountaineers did not need his services, and in observing the guests of the Inn and permitting them to observe us to our mutual edification, khaki suits, calked boots, alpenstocks and tanned faces making a striking contrast with white flannels, tennis shoes, parasols and lily white complexions.

We invited the guests to visit our camp and they proved to be "good fellows all", showed great interest in our sleeping-bags and camp equipment and said they enjoyed our camp-fire songs and the stories we told of our long hike.

Mt. Hood stands in the dooryard of Cloud Cap Inn, or just over the fence, and towers over 5000 feet above it. Sweeping down directly toward the Inn lies the magnificent Elliott Glacier.

By 4:30 o'clock Monday morning we had had breakfast and sixteen of the party started on the climb. Our route was along the east side of Elliott Glacier to the summit of Cooper's Spur three miles away and 2800 feet above camp. We then turned to the right and climbed the steep snow-field at the head of Newton Clark Glacier to Crescent Crevasse where the slope became steeper and reached an angle of sixty-five degrees which it maintained to the summit. From this point we availed ourselves of the rope 1400 feet long anchored near

the summit each season by the guides, and climbing hand over hand, reached the summit, elevation 11,225 feet, at 12 o'clock.

The steep climb was a novel experience for Mountaineers accustomed to climb the massive snow-covered domes of our Washington mountain peaks, and when we reached the summit we found not snow and ice, but bare volcanic rock.

The view of the Willamette valley on the west was obscured by heavy clouds, but to the north and east was spread the beautiful panorama of the Columbia valley, while beyond were miles and miles of Washington wheat-fields, and on the northern horizon stood our old friend Mt. Adams upon whose mighty snow cap, 12,307 feet above the sea, we had stood just one week before. Beyond Adams, above the clouds, was the summit of old Rainier, 14,526 feet high. To the east and southeast through broken clouds we caught glimpses of the great plains of Eastern Oregon, while in the south rose the pinnacle of Mt. Jefferson and beyond the Three Sisters.

After lunch on the summit under the lea of a pile of rock to escape the biting wind and an hour spent in photographing the scenery upon our memory and ourselves with the camera, we began the descent backward down the rope hand under hand, then coasted down a mile of snow slope and were in camp by 3:30, happy that we could carve the names of two mountains upon our alpenstocks for the year 1911.

Tuesday we walked twelve miles to Parkdale, took the train to Hood River and the steamer down the Columbia to Vancouver, and reached Seattle Wednesday morning, August 9.

ELLIOT GLACIER ON MT. HOOD

Photograph by Mabel Furry

MEANY

As valiant as the eagle in his heaven,
As steadfast as the iron rocks, hard riven;
As warm as sunshine after rain, as sweet as sleep is after pain,
As golden as the sunset grain, as peace upon the heart had lain;
Refreshing as the wood's wind after showers,
Or strong as mother love—or mountain towers:
Yea, even so is he—and he is ours,
And so, to him, these wild and wind-blown flowers.

A. H. A.

EDMOND STEPHEN MEANY, M. L.
President of the Mountaineers.

*CLIMBS IN THE SOUTHERN SELKIRKS

EDWARD W. HARNDEN

"Hail Columbia!" That is what I could have appropriately sung, even in Canada, on the Fourth of July this year, as the "Klahowya" laboriously forced her shallow breadth against the winding current of the ninety-mile stretch from Golden, on the Canadian Pacific road, to the head waters of the Columbia river. The visit of 1910 with Mr. Herbert W. Gleason to the snow and ice clad sources of the stream, as told to readers of the Mountaineer last year, had been fascinating but disappointing. Like Moses, we had seen but had not entered upon the promised land. Our trip to the head of two of the western tributaries, Toby and Horse Thief creeks, rising in the very crest of the southern Selkirks, had afforded us glorious Alpine views of unclimbed and almost unknown peaks; but protracted forest fires had enforced an idleness which had left us in bad climbing condition and had so shortened our time that, instead of leaping joyously from crag to crag, we could simply scurry about and size up what we would like to do another year. Instead of sitting haughtily aloft, "like Jupiter on Olympus, looking down from afar upon men's lives," we had simply

"Walked right in, and turned around,
And walked right out again."

Mr. Gleason's plans for 1911 did not permit of a resumption of activities in the region; but I had greatly interested two Boston mountain-climbing friends—Mr. George D. Emerson, a fellow Mountaineer and Appalachian, and his wife—and they were awaiting me on the morning of July 5 at the head of navigation. A hurried breakfast together was followed by a lightning change of "duds" and throwing together of dunnage, and we, accompanied by Mr. Charles D. Ellis of Windermere, a climbing companion of last year, were packed and off for Toby Creek.

*A continuation of Mr. Harnden's "A New Mountain Country" in the Mountaineer of November, 1910.

We first visited the Paradise Basin, whence we started the climb of Hammond last year, and where our Recording Angel, Mrs. Emerson, performed the rather remarkable celestial feat of coasting down into Paradise. But the North Fork of Toby Creek, somewhat farther on and about eighteen miles from Athelmer, the head of navigation on the river, was the scene of our first real work. We intended not only to climb, but to size up the country topographically and otherwise as well as time would permit. We were our own guides, packers, cooks and dish-washers—no trouble with the servant problem! Mrs. Emerson, besides acting as Recording Angel of the expedition, planned to do a little botanizing; Mr. Emerson, who is an engineer, carried a light transit, and we had ice axes and rope and the best procurable aneroids. Incidentally, better measurement and aneroiding showed that our estimated altitudes of last year over-shot the mark; but it still remains true that the southern Selkirks equal the northern in height and surpass them in Alpine grandeur.

A few minor tramps and scrambles about Paradise Basin and our North Fork camp put us in fairly good condition. We had planned a second ascent of Mount Hammond—first ascended last year by Mr. Ellis—by a new, and it seemed to me more interesting, route, which I had then observed as a possibility. Mr. Ellis was anxious to join us on this second ascent, but was called from camp by business, and while awaiting his return the Emersons and I packed on our backs our sleeping bags and provisions for several days and made a trip to the head of North Fork. The magnificent glacier scene here afforded from the high eastern slopes of the Fork, I referred to last year. A summit above us, to the east, which seemed to offer a magnificent view-point, attracted our attention, and this summit furnished us with a splendid day's climb and a first ascent. The combined snow gully and sharp rock arête work gave us a good try-out and test of condition.

Mount Catherine, as we named the peak, is from 10,000 to 10,300 feet in height, subject to later calculations, bears on its north face, overlooking Boulder Creek, a series of splendid, precipitous, hanging glaciers, and offers one of the finest Alpine panoramas imaginable. Not far away, to the east, was Mt. Hammond, while to the west, tier on tier, rose the magnificent peaks of the main southern Selkirk range, with some of which

Photograph by Edward W. Harnden

ICE COLUMNS ON TOBY GLACIER

we were to hobnob—and hobnail—later. As far as the eye could see, from south to north, the landscape fairly bristled with the typical glittering, crevassed glacier fields and jagged summits of the Selkirks, which, while perhaps not averaging quite as high as the neighboring Rockies, have much finer ice-fields (excepting such northern ice-fields in the Rockies as the Columbia and Washmawapta), due to greater precipitation, and are more Alpine in character.

We returned to our lower camp in good shape for the Mount Hammond climb. Charlie had not returned, and we had to go without him. A short distance above our camp Hammond Creek—so named by us—enters North Fork from the north. The Emersons and I packed in an almost straight course up this creek, camping near the base of the west side of the mountain, preparatory to attempting the climb by a route which had seemed to me last year a particularly interesting one.

The steep and direct rise up Hammond Creek from our North Fork camp, with its elevation of about 4300 feet, to the base camp for our Hammond climb, at 6700 feet, afforded an unusually striking illustration of changes from temperate to sub-arctic conditions. The trees rapidly dwindled to scrub, and the character of the flowers, which were beautiful and profuse, changed with every few hundred feet of rise. There is no lost ground by this route, and it makes a far more interesting climb, technically and from a scenic point, than the route of last year from Paradise Basin.

From our camp, in a strip of woods overlooking from the left the snow gully at the head of Hammond Creek, we could clearly figure out our probable route of the next day, when the bright promise of the evening was fulfilled. Outlined against the early morning sky line, on July 14, to the northeast stood the steep rock and snow profile of Mount Hammond. We knew that this arête that stood out against the sky looked down on the farther side vertically to Boulder Creek, and it was by this ragged Boulder Creek arête that we planned to ascend until we reached the bastioned crown just below the summit. A sharp rise of about two hours, scrambling over broken rock slopes and up steep snow gullies, brought us to the arête, and careful climbing up the unstable rock bridge, with its tremendous views into the yawning Boulder Creek abyss at our left, finally brought us to the crown. This is composed

of tremendous cubical rock bastions, pierced by occasional gaps, where erosion of the rotten rock by frost and glacial action has left rough, narrow, sharp V-shaped chimneys. The first gap had seemed impracticable to Mr. Ellis last year, and at first so impressed us; but there were three of us, we had a good rope, and, avoiding the snow-filled depression, into which broken rock has a habit of falling, and taking to the side rocks at the left, a half hour's delicate and careful work—in which our Recording Angel, a novice in Alpine work, showed splendid nerve—placed us at the top of the bastion, whence a short scramble brought us to the top of the shattered rock cone which forms the summit.

Our calculations this year dropped the summit to about 10,400 to 10,600 feet—subject to later refinement—an elevation, however, well up to that of the highest northern Selkirks; and the glorious view afforded of the Columbia valley to the east, with the Rockies rising beyond, and of our neighboring crest chain of Selkirks to the west, we can never forget.

Our North Fork plans were now consummated, and our next base of operations was Earl Grey Pass, at the head of the main Toby Creek, as described in last year's Mountaineer. This is a pass leading over into the west Kootenay region, and was first crossed by a Mr. Wells, of Boston.

A day and a half's packing from the North Fork camp landed us there ready for business, camped in a little park reminiscent of Rainier, surrounded by erythronium and giant anemones, the dying gasp of the expiring timber still leaving, in addition to the Lyell's larches, fir balsam for beds. About us was one of the noblest panoramas conceivable, suggestive, as I said last year, of the view from the Gorner Grat.

The sharp, high, apparently inaccessible peak pictured in plate III last year, lying south of the Pass, had haunted my dreams during the winter. I knew that it had three apparently impossible sides. The fourth, lying in back, I had never seen, but I had faith that it would prove feasible. So on the promising morning of July 18, we started out to circumvent the mountain and see whether I was correct. The party consisted of the Emersons, Mr. Ellis, who had now rejoined us, and myself. We dropped from the Pass, which is at a level of about 7400 feet, to the Toby Glacier, which lies at the head of Toby Creek and is its source, and traveled the long gradually rising curve

of the glacier for several miles, starting in a southerly direction and gradually swinging to the west as we cut the arc of a circle around the peak. As we rounded a sharp, knife-like rock shoulder of the mountain, that unknown south side came into view, and there seemed a reasonable chance that the mountain was ours. Instead of precipices where in places the snow and ice could barely maintain a foothold, we found the hollow on this side filled with a steep, winding glacier tributary to the Toby Glacier, with névé and snow-field above and a rock ridge at the top, and all apparently negotiable with proper precaution. There were the usual problems of avoiding crevasses on the lower levels and looking out for rocks above; but all went well, and one o'clock in the afternoon of a splendid day found us the first persons on the summit of Mount Gleason (named after Mr. Herbert W. Gleason), one of the finest peaks of the southern Selkirks. We lunched and enjoyed the curiously detached and tremendous sensation afforded by a view of a chaotic ice and rock world from a peak one side of which swept down thousands of feet in a sheer precipice below our feet. Our aneroiding placed the height at about 10,600 feet, and rough triangulation from Toby Glacier, where we subsequently ran a base line, gave a height of 10,800 feet. The summit rock seemed to be largely granitic, which probably accounts for the peak's retaining its sharp, Matterhorn-like shape.

The running of a base line on Toby Glacier and a trip through the ice columns of the "Temple of Karnak," which we threaded from end to end, on subsequent days, brought our Toby Creek work to a close, and we then hied ourselves to Horse Thief Creek, another west to east tributary of the Columbia river, lying to the north of Toby Creek. Mr. Ellis had to leave the party again, on account of business.

Horse Thief Creek, in its 45-mile length, heads up in another interesting part of the crest range. Outfitting for the mountaineer and hunter is facilitated by Thomas Starbird's delightful Mountain Valley Ranch, about thirteen miles up the creek from Wilmer. This creek, in its variety of scenic features — canyons, hoodoos, steep mountain side walls, unsurpassed waterfalls and its culminating magnificent Alpine scenery at the head—far surpasses even the beautiful Toby Creek. Goats fairly run riot on the mountains about the valley, there is an

occasional grizzly to make things interesting, and at the ranch there are saddle horses and delightful quarters and surroundings for the non-strenuous tourist.

To a camp 28 miles above the ranch the Emersons and I packed by horse; and from this camp we did some minor tramping and climbing, exploring what we called Goat Creek, a northern tributary of Horse Thief. We bucked brush up the west side of the creek and came down the more open rocky eastern bank, following the stream closely and getting superb views at close range of magnificent falls, as the stream tumbled in a continuous series of cascades down the steep mountain side, having their source in a lake of marvelous beauty.

Above this camp to the head of the creek and the foot of the great Starbird Glacier there was no trail for horses ready, although the government has interested itself in the section and a horse trail was cut up to us before we came out; so, with the assistance of the trail-cutters, we packed up on our backs tents, sleeping bags and food for about ten days. We chose, in a flat bordering the main creek and about two miles below the glacier, an ideal camping site. A delightful little mossy brook of the purest water ran before our tents; at hand was a good supply of fir balsams.

"The beds were made, the room was fit,
By punctual eve the stars were lit."

Back of us a wild, jagged, vertical cliff up-reared; across the valley three wonderful falls plunged down the mountain side; and at the head of the creek, in full view, was the lower stretch of the noble, curving Starbird Glacier, with its background of snow and ice peaks, dominated by the great summit which we hoped to climb.

A reconnaissance was, of course, first in order, and this we planned from a minor peak across the glacier to the north. So that we need not retrace our steps and the climb might not be too long from our camp, the Emersons and I planned a possible three-days' expedition from camp, packing on our backs sleeping bags and provisions, devoting the first day to reconnaissance and locating a base camp, the second day to the climb, with the possibility of returning to the main creek camp the second night, but being prepared to be out a third day.

STARBIRD GLACIER AND PEAKS AT THE HEAD OF HORSE THIEF CREEK Photograph by G. D. Emerson

The reconnaissance was successful and interesting. Our minor 9000-foot peak enabled us to look across at the summit we had in mind and to lay out alternative routes, and offered glorious views of the snow and ice world about us. The Starbird Glacier, which stretched its immense length in a horseshoe beneath us, is perhaps twelve miles long, possibly the largest in the Selkirks. On every hand were immense ice fields, while hanging glaciers, due to the peculiarly precipitous nature of the mountain walls, abounded. From one such, over an almost vertical mountain precipice across Horse Thief Creek, we witnessed within ten minutes of each other two tremendous avalanches, the shattered ice streaming thousands of feet down the mountain side in cascades and finally debouching on to the great glacier itself. Some goats also passed in review at reasonably close range.

Making camp at the nearest point to our peak where wood seemed available, we turned in, prepared to climb the next day. We started long before sunrise, the route upon which we had determined lying over the surface of the glacier for several miles, swinging from south to west to the summit of a pass over into west Kootenay, then turning sharply to the left and following a long "switchback" glacier, which skirted our peak on the north side, to an ice and snow slope which, with broad cross crevasses and a final bergschrund, rose steeply and directly to the rock-capped summit. An alternative route, if this should prove impracticable, involved the attack of a rock comb from a point near the pass and working along this comb to a high snow-field, assailing the summit from the rear.

It soon became clear that the elements were against us. Heavy clouds and mists formed, and did not break away with the rising sun. We crossed the pass and got some grand views of the lower West Kootenay mountains, but our summit remained obscured and weather conditions were threatening. Finally, we were reluctantly obliged to give up the climb.

Fate had other knocks in store. Shortly after returning to our main camp a telegram came up the line calling the Emersons home; and one of the trail-cutters, Ernest Rafford, a former Maine guide and woodsman, who joined us and wished to participate in a second attempt on the mountain, had not been in camp five minutes before he had cut himself well into the ankle bone with an axe. My comrades sadly departed, say-

ing that they would try to send up somebody who would like to climb the peak, while I waited a week in camp, taking care of the unlucky chopper and hoping against hope. And it rained almost continuously in the valley—and snowed on the mountains!

At last, on August 10, the weather cleared beautifully, and the little angels who preside over the destinies of sufficiently persistent mountaineers—and other mortals—smiled. Towards evening, the jingling of bells told me that the horse trail to our camp had been completed, and Frank Butterfield, superintendent of the Starbird ranch, with Jack Poorman, of Idaho, a trail-cutter, and Mitchell Coffin, of Brooklyn, appeared on the scene.

The hoodoo was broken. Five o'clock the next morning saw Coffin, Poorman, and myself well on our way up the glacier, Butterfield being unable to join us because another trail-cutter had been injured and had to be taken down into the valley.

The fates never granted more beautiful weather for climbing—although I was afraid our magic three might be broken when twelve goats gazed simultaneously down upon us from a neighboring hillside and sang their Lorelei song to Poorman, who was tempted to go back and get his gun.

We managed to avoid actually getting into crevasses in the glacier and switchback, although occasionally a leg would disappear, and some anchoring and broad jumping was necessary; but the most study was required on the final sharp rise to the summit. A week's heavy fresh snow covered the old ice and snow on the steep slope, increasing the danger from avalanches, and in negotiating the slope bad cross crevasses—"glory holes," as Jack called them—had to be dealt with. Fortunately, however, the new snow had avalanched almost from the top in a narrow strip, and we zigzagged in and close to this strip, made good steps and kept the rope taut. Above us, too, slightly to the right as we neared the top, was a projecting hummock which would probably have divided an avalanche from above, and we could, if threatened, quickly line up below it and brace. But nothing untoward occurred. Even the final bergschrund, which we thought might cause us some work and study, and which we were prepared to go down into and up the other side, offered a splinter of a bridge which bore us safely across; and, surmounting the final 15 or 20-foot vertical

snow wall with a straight frontal attack, digging in with fingers and toes, I found myself, at 1:30 o'clock p. m., within twenty feet of the highest rocks on the peak, thus justifying our careful reconnaissance, for we had not actually seen the summit since long before leaving the main glacier. Up swarmed the others, and at a signal the highest rock felt its first touch of human feet simultaneously given. Our sizing up had been accurate even as to the time necessary for different parts of the climb, and we returned to camp shortly after 6 p. m., as I had told the boys we probably would.

We intended to name the peak, the elevation of which is about 10,200 feet, Mt. Thompson, after the early explorer, but I have since found that there is another Mt. Thompson, so a different name must be given. The view was perhaps the most superb of the summer. The immense curve of the Starbird Glacier, the striking contrast offered by the snow and ice fields and rugged summits of the West Kootenay ranges, with the deep, green, intervening valley, and the tremendous Alpine sweep along the crest of the main range to the south, to the head of Toby Creek and beyond, and to the Spillimacheen Mountains in the north, combined in a wonderful, glorious panorama.

All hail to Horse Thief and Toby Creeks! And there are other creeks as little known, leading to unclimbed summits of these, the noblest of the Selkirks. There is an urgent call to the mountaineer and hunter, and it will not long remain unanswered. Stevenson says: "We are not content to pass away entirely from the scenes of our delight; we would leave, if but in gratitude, a pillar and a legend."

We have built our cairns, and this is the story. And there, awaiting other explorers and climbers, are

"the hills,
Flashing the morn abroad
From their iron crests, which took
The rose of creation's dawn—
Themselves the earliest book,
On whose carven crags, deep-drawn
Stands written the will of God."

THE BENEDICTION OF THE MOUNTAINS

Rev. Frederick T. Webb

The treasured memory of twelve years' residence near to the very heart of the Rockies and nine years in daily sight of the splendid Cascades and the wild Olympics and the amazing "Mountain that was God", with many a vacation hour spent in their suggestive and serene solitudes, has convinced me that mountains have a very distinct individuality. That is a truism. But they have more than this; something like a very live and majestic personality. It is scarcely a metaphor to say: we sit at their feet and learn, that we commune with them, that our hearts go out to them and that they give answer back to us.

Have you not felt as if these pine-clad, snow-garmented peaks were wrapping you in their great friendship? You do not feel that they are standing aloof coldly awaiting your homage; they take you to themselves, into their grandeur. They impart their strength; you warm their loneliness; and in the union of mountain and man you realize your oneness with the great universe itself, and are in touch with the throbbing soul of God.

I believe the very presence of the mountains is a benediction. And so is the mountain's altitude. Whether he will or not, it lifts one up; first the eye, to scale its sides, and then the soul. All who love the mountains or look upon them are not actual mountain climbers, but the vision of them all moves to the skies, of necessity, under the mountain's leadership.

And their example! Is not that, too, a benediction? All the secret of life is wi'h them. How responsive they are to the creative agencies of nature, still at work. This is their submission to the discipline of life. The pink glow of sunset is the mountain's gratitude for the light of the passing day in which they have bathed. They stand immovable—as a brave man may, upon the granite basis of his faith, while the heat and the storm and the slow erosion of the rocks are doing for

their form what the storm and stress of experience are doing for the human soul; moulding it into shape.

It is so firm and true,—the mountain, yet it is not ungraciously stoical. Its varied moods are the token of its sympathy with the changing processes which are bringing it to the perfection of a more finished beauty. And all the while it keeps up its ministry, through the fertilizing streams, to the needs of the green and fruitful valleys below and so to the people who dwell there.

"The Lord bless thee and keep thee: the Lord make his face to shine upon thee and bless thee; the Lord lift up the light of His countenance upon thee and give thee peace."

May we not so read the benediction of the mountains?

Photograph by A. H. Denman

AT SUNSET

THE FUTURE OF THE RAINIER NATIONAL PARK

Asahel Curtis

The most pressing need in mountain affairs in Washington at the present time is the improvement and extension of the roads of the Mt. Rainier National Park. The mountain is attracting wide attention and people are coming from afar to visit it. If they find the mountain accessible they will tell their friends about their trip and the mountain will receive the best form of publicity. If, on the other hand, they find there are no roads or only one fair one, they will probably so state and by so doing dissuade many from a visit. Now is the time to go at this matter with all the vim that can be shown, and the Mountaineers should be the ones to lead in this work. They should prove that they know what is needed in mountain work in the state and not leave this important work for the commercial bodies of the two cities. The work is broader than the purposes of commercial bodies, the park is a national one and not a Seattle, Tacoma, or even a Washington one. Therefore the work in behalf of the park should be national. The senators and representatives of Washington may work for a system of roads, but they must have the support of others before the necessary bills will pass. The club should organize a campaign of publicity, get the eastern mountain clubs to help and have them take the matter up with their senators and representatives, urging the passage of this bill. Eleven thousand people passed through the park entrance last season. The majority of these would be willing to write to their representatives at Washington in favor of a bill to improve the roads. They know that they need improvement. President Taft was able to reach Paradise Park, but he learned just what was needed to make the road a success.

The first thing that should be decided upon is a plan of action that can be followed for years, and all parts of the park opened. No money can be appropriated for roads until surveys are made, therefore those surveys should be started the coming summer.

Copyright Asahel Curtis

Mt. Rainier from Indian Henry's Hunting Ground southwest side of the mountain. A survey has been made for a road into this park from the present road to Longmire Springs. This road should be constructed as soon as possible to afford a relief to the crowds now going to Paradise Park. This road would also open up Van Trump Park, which lies between Paradise and Indian Henry's.

There is need of a road on the north side as well as the south side. This can go from the present road at or near Fairfax and reach the ice of the Carbon Glacier. From this point it can be continued into both Spray and Moraine parks. Some road should be opened from the east to permit people to come in on that side and go out via the south. The important thing is to decide as soon as possible where roads are to be constructed and then see that a continuing appropriation is made for such development.

There is no question but that the present road should be widened from Ashford to Paradise Park sufficient to permit autos and stages to travel over it safely. The government began a stage road to the park and then allowed the use of autos. This has created a menace which the government is morally bound to remove.

Right here in the matter of roads is where the Mountaineers can do a great good for the state. Being a state-wide organization they can do much to remove the partisan spirit. If Seattle and Tacoma can be united upon a system of roads for the Rainier National Park, the chance of getting the necessary appropriations from Congress will be increased many fold. As long as there is a feeling that the state is not united in this matter Congress feels safe in passing up all appropriations.

A north road is certain to come and the Mountaineers should be the first ones to back the movement for it. They are familiar with the region to be opened, the scene of their 1909 outing, know of the beautiful parks that will be made accessible to tourists, and should do all in their power to aid in the work.

Superintendent Hall has opened some of the old trails on the north side and built some new ones. An application has been made for a hotel permit in Moraine Park, and also one in Spray. It will be only natural, when these hotels are open, for the tourist to wish to make the trip from one side to the other. This will, more than anything else, lead to the opening of trails, and later, roads around the mountain.

I realize that the true Mountaineer would much rather see the mountains from the trail or the unexplored wilderness, but to make mountains at all popular, to get the majority of people into them, it is necessary to have roads.

ALL NIGHT ON AN ACTIVE VOLCANO

Charles Albertson

Recent newspapers report a renewed activity of Asama Yama in central Japan. Friends confirm these statements and tell of the loss of human life. All this brings clearly to mind a trip brother and I made to this energetic volcano-mountain some years ago. It was in September, 1901, that we took steamer from my home in Kobe for Yokohama. From there we traveled probably a hundred miles by narrow gauge and rack railway to a little village called Karuizawa, on the watershed of the unique Island Empire. Asama Yama is of volcanic origin, without glaciers, young, and therefore shapely and attractive. It is gray-brown, of broad base, conical, and rises in graceful curves from a plateau to a height of 8280 feet.

One splendid fresh morning we started from Karuizawa at 8:30. Brother got away first while I was lengthening the stirrup-straps. He had three men to his jinrickisha, one in the shafts and two pushing. They swung out of the tiny mountain hamlet at a lively pace and all knew we were bound for Asama. After six miles the road began to climb gradually and at eight miles we stopped at a clear, cool spring to fill our water bottles, as we should find no water beyond that point. We rested here a little and then started on up the winding roadway over the rounded foothills. In the cuts we could count three layers of scoria or pumice each 15 to 24 inches thick with black earth between. Evidently they were from three of Asama's eruptions many centuries apart. At 11:30, ten miles out, we left the road and turned in on the path which led to the foot of Ko-Asama. This means "Baby" Asama, and a pretty little thing it is, too. It is an exact miniature of the volcano and rises a thousand feet above the base of Asama. Here we had "tiffin" under a small pine. The jinrickisha could go no further, but the pony did go on up to the saddle between the baby mountain and its mother. We were now at 12:30 p. m. at the base proper of the mountain and our real work had only

begun. Owing to the zig-zagging of the trail we still had some two miles to go to reach our goal. The route was marked by stone cairns.

When about half way up to the top, which we were usually watching, we saw an unexpected eruption like many we had seen at longer range. It consisted of smoke, steam, and ashes, one-eighth of a mile in diameter at the crater mouth, projected about a mile and a half straight up in the air. It went skyward, seemingly slowly, but in fact with great speed, gradually unfolding and spreading out until the top was much larger than the base upon which it appeared to stand. As the vast gray-brown volume ascended, more of course took its place from the crater, thereby keeping the form of the ever-rising shape. The whole mass literally boiled and tried to unfold and unwind and untwist like great brown clouds each trying to get out of the immensity of itself and yet always keeping an approximate waterspout shape, unable to accomplish its separating purpose. Soon the winds began to drift it over until its symmetry was lost and it mingled with the clouds distinguishable only by being a little darker in color. It had been a wonderful sight and not soon to be forgotten. In a few minutes we were treated to a rain of fine, penetrating, biting ashes. After awhile we turned to the right and followed around the side of the mountain instead of climbing directly up. This was easier work, though more dangerous, for it took us across a very long steep slope with precarious footing. At last this diagonal trail brought us out on a fairly level knoll about 1000 feet from the crater and 150 feet below it. We reached the top at 4:00 o'clock. The climb was 4500 feet.

When within 50 feet of the crater there was a booming roar from directly under us like unto ten Niagaras. We were instantly enveloped in ashes and a black sulphurous smoke mixed with hot steam which had no respect for our sense of smell any more than the ashes had for our eyesight. At the same time we distinctly heard rocks and stones dropping back into the liquid lava way down in the unearthly crater. They fell with great, thick-sounding, heavy puds as of immense bodies of ore dropping into molten iron. The falling masses had an ugly, angry, spiteful sound as if sulky and mad at not having been spit out of the seething mass entirely. There we were in the smells and smokes fresh from hell and in semi-

darkness. Resounding in our ears a wild, baffled, awful roar of rage from the very entrance itself. Under our feet we heard and felt the rocks as they went plunging back into the yellow heated cauldron from which they had only been partially ejected. It was all so utterly unexpected, so sudden, without any warning, that we heartily wished ourselves well out of it.

Photograph by Charles Albertson

Smoke, steam and gases erupting from Asama Yama. Column of vapors three-fourths of a mile above the crater

The smoke cleared away and our tremulous nerves quieted down. Then the first thing to do was to see where all the grewsome fun came from, so we made for the edge of the crater. The top for a very short distance around the great, yawning, circular hole is fairly flat and is one mass of rocks and lava completely filled in with ashes. It is therefore very porous, hollow sounding, and not well built to resist pressure. Standing on such material we looked over into the uncertain pit. The sides were straight up and down and we drew back in horror. We had little faith in the unstable ground we stood on. Far, far below we clearly heard the Devil's awful kettle boiling, slowly boiling, boiling rocks, boiling the foundations of the earth, boiling the things we considered indestructible. Our ideas of the permanency of things changed. It was not a vigorous boiling, but gave a definite feeling of power, slow

but awful power. Time was no object. The result would be accomplished just the same. No hurry, but forever and ever and ever boiling. On no fickle substance like water did it waste its energy, but concentrated its action on ponderous adamantine masses which took the power and heat of all the underworlds to melt. The mighty cupola spit and sputtered in a dignified manner, knowing that it had unmeasured forces behind it and that it was doing the irresistible will of the Fire Gods. We could not see the bottom on account of the steam which rose continually from the unknown depths, but we did see down about 500 feet. The perpendicular rocks were such as we had never seen before—though we will probably see them as long as we live, so vivid was the impression. They were nauseating and infernal, a yellowish, sulphur-green, roasted and grilled, baked and fried and toasted by the intense heat, and at some time had been cooked and boiled and parboiled in living red-hot lava. Everywhere we went we encountered sulphuretted steam, awesome radiating rock-crevasses, warm rocks and areas so hot as to burn our shoes.

As we looked from the apex of the great cone, whole provinces in quiet grandeur unfolded before our delighted eyes. To the northeast was the verdureless, white Shirane San, an extinct volcano, and Nantai San, which I had climbed the year previous, shapely and verdure-clad. North, west, and south were great ranges and peaks, while away in the far south the peerless, graceful, magnificent Fuji appeared easily distinguishable, though over a full 100 miles distant. It towered 12,365 feet above the ocean, which almost washed its base. I have climbed it twice. In the east was the great Musashi plain stretching away to the mighty Pacific. Quiet rivers ran through it, villages and cities dotted it, clumps of straight, tall cryptomeria hid the inevitable shrine, and dainty bamboo groves showed themselves in favored places as islands in a sea of rich green, waving rice. Above all the noise and strife of the world we felt the peacefulness of the great silences and distances pervading us.

We wandered all over the summit, filled our hearts with delight at the beautiful panorama lying in every direction, and wondered at the proofs of power continually before us. Thus talking, wondering, enjoying, investigating, we finally reached the rock-crevasse just at dusk where we had left our dunnage

two and one-half hours before. We were hungry, very tired, the excitement seemed over, the sun gone, darkness hurried after us, damp misty clouds wrapped us, chill-cold gripped us. We were suddenly alone in the night upon a mountain top, far from home and our beloved world below.

Cries of piercing terror from the coolies made me look toward the crater. What I saw transfixed me to the spot spellbound—speechless—terrified. The sight was one of horror and awful power. The great crater was violently vomiting. The mountain shook. From the nether worlds came flame, murky smoke, and red-hot exploding rocks. The thing burned itself into me. I can see it yet. The darkness, torn by livid flame, then made darker by the smoke, the reports of the bursting rocks, the crunching crashing of the rocks falling near us, the solemn awfulness of the place, the unexpectedness, the astounding manifestation of immeasurable hidden forces, and the intense uncertainty as to what was coming next, all combined to root me fast, overcome with awe and fear. The yawning abyss gradually stopped its action and only an occasional sputter in the great yellow bottom of the cauldron gave evidence that it was not entirely dead. But our peace was gone. Our early desire to be nearer was fully gratified—and more. We wished we were well out of it. Next morning we estimated that we had been 800 feet from the edge of the great hole when the eruption took place. Rocks had fallen to within a few feet of where we stood. Some weighed a quarter of a ton. We were fortunately just far enough away to miss the rain of rocks—and no further.

We arranged to sleep just as far away from the crater as ever we could get. It was in a long, narrow crevasse which evidently was at one time a deep, painful, earthquake rent near the edge of the mountain crest. The falling ashes had soothed the wound to within a man's height of the top. We were well sheltered by an improvised carpet-tent from the driving damp wind without and the dull damp floor beneath—but were not comfortable in mind. It was dark and dangerous outside and we could not escape from the mountain at night. Just before we slept there were tremors and another eruption, but this time of smoke only. Twice in the night I awoke to hear others and to wonder what next. We were under the edge of a soft, friable rock which a falling rock could easily crush down on

ASAMA YAMA FROM KARUIZAWA TEN MILES AWAY

us. We were on the top of a most uncertain volcano which behaved most strangely. I was full of a complexity of weird feelings mingled with those of utter helplessness and danger. All the surroundings were dark and fearsome—was it a wonder that we slept uneasily and heartily welcomed the day?

At five in the morning as the dumb, grey, grizzly dawn was finding itself out of the blackness in the east, we were awakened by another loud explosion and crawled out to see once again at close range the magnificent boiling smoke. The rocks this time fell back into the hot bed whence they came. We felt easier, for we expected to be off that place before the usual time for another. There was no sunrise for us and our scant breakfast was hastily eaten. Another look was ventured into the great pit of the Evil One, but we could see nothing, as the steam from his breakfast of sulphur and lava rose in great volumes. The wind, too, stinging cold and keenly damp, wrapped the clouds in gray, chilly sheets about us, so that we were glad to make away from the haunted though enticing pinnacle downwards toward the earth whence we had come, it seemed, long, long before. We made fast time getting off that volcano, for in an hour and a half we were at the base of Ko-Asama, mighty glad to be free from the mental tension of the night before. Then it was we spread our blankets in the gladsome sunshine, ate a bite, and stretched ourselves to sleep.

A half hour in the jinrickisha followed. Then an hour on foot over a very ancient lava flow which was covered by a sparse vegetation. This brought us to an ice cave under a young lava bed only one hundred twenty years old. The great, brown, cavernous mass rose abruptly before us and we scrambled, climbed, jumped, and did various goat antics to get up and out on the top. The sight we saw was wonderfully impressive, for the bed was at least five miles long and two miles wide. The formation was jagged and ragged, caved and pitted, creviced and crannied, tossed and tumbled, browned and burnt, scarred and seared, restless and confused. It showed under us and all around us unmistakable proofs of a power that in its action must have been tremendously and stupendously magnificent. Some vast, awful, fearful, netherworld force stirred to wrath had poured its vial of hot, surging lava out over a beautiful world, leaving fearful destruction in its path.

Even to this day there is no vegetation on the miles of waste rock. The dust may fill a small crevice or two. The rain moistens the seeds dropped therein by the birds, but that is all. They are like the biblical seeds that were dropped by the wayside and brought forth fruit—no fold. This clean, new, vegetationless bed, even though old by our standards, impressed upon us a clear perception of the age of the world and the long, slow processes of time. The usual and unusual incidents of the trip, including our escape, had enlarged our soul vision and made us meek.

We left the lava beds at two, were picked up by the shaky jinrickisha at the lone tea house at three, had another drink out of yesterday's spring at four, and in the gathering dusk at 6:30 we swung into Karuizawa, pleased, weary, tired. And soon all those in the village whose tongues were Japanese knew that a pair of foreigners had spent the night on top and returned safely from the feared and mighty volcano, Asama Yama.

AT CLOSE OF NIGHT ON VOLCANO

WITH THE ALPINE CLUB OF CANADA

*P. M. McGregor

The sixth annual camp of the Canadian Alpine Club was held at Sherbrooke Meadows, B. C., from July 26th to August 4th, 1911. The camp was five miles from Hector, on the main line of the Canadian Pacific railway, midway between Field and Laggan. It was in a beautiful valley—mountains on both sides and above, with Sherbrooke Lake a mile lower down the valley and with Lefroy, Victoria, and Cathedral mountains in sight across Lake Sherbrooke.

The club furnished tents with good bough beds, sufficient to care for 125 at one time. Over 150 attended the camp during the nine days. There was a large dining tent capable of seating about 80 at one time, located midway between the men's and women's quarters. A Chinese cook and two assistants cooked for the large party, and a maid cooked for the help and for any meals outside the regular hours. There were three maids and three boys to wait on the table. Tea was served at 4 p. m. every afternoon for any ladies or others who cared to indulge. There were three Swiss guides in attendance during the outing, besides a number of the older members of the club who acted as guides. The rope is used much more than on the Coast mountains, the people being roped together in parties of five or six as soon as the climbing becomes difficult. There is very much more rock work and much more difficult and dangerous climbing than in the Coast mountains. The ice-ax is much more popular than the alpenstock and is better for experienced climbers, especially on rock climbing. The main object of the summer camp is to qualify or graduate members. They become active members upon making one of the climbs decided upon by the climbing committee. Mt. Daly, 10,382 feet, was the graduating climb this year. Mt. Ogden, 8,795 feet, was a nice climb close to camp, and Mt. Niles, 9,742 feet, was another one not far away. Pope's Peak, 10,255 feet, seven miles away, was to have been a graduating climb, but

*Official guest from Mountaineers to Alpine Club of Canada.

was found to be too difficult, so only a few had the pleasure of making it. Five members of the Alpine Club and the representatives of the Appalachian, Mazama and Mountaineer clubs were given the trip up Popes Peak as a reward for their attempts to help the graduating classes. Along with two Swiss guides this party made the ascent the same day that the Mountaineers climbed Mt. Adams. There was some rock work that showed the guides to good advantage, and also showed the need of the party being roped together. This climb was made from a temporary camp at Ross Lake, the only place that the

Photograph by P. M. McGregor

LAKE LOUISE, PART OF VICTORIA GLACIER SHOWING THROUGH THE CLOUDS

mosquitoes were bad. We spent one night there, but preferred to make the trip to the top and back to main camp the same day rather than spend another night there.

The annual meeting took place next day. There were 125 people in camp, a number coming in for that occasion. Elections take place every two years and this was the year that they "stood," so it was principally reports that were submitted to the members. The secretary's report showed that the club had a paid-up membership of 650, that the club received grants of money from the Dominion government, British Columbia government, Alberta government, and the Canadian Pacific

Photograph by P. M. McGregor

MT. BIDDLE AND GLACIER. LAKE McARTHUR, ONE OF THE MOST BEAUTIFUL LITTLE LAKES IN THE ROCKIES

railway, besides two Swiss guides free from the Canadian Pacific railway during camp. This money is expended principally on opening up and exploring new country, Mr. Wheeler and the club guide being in the Yellowhead country all summer. There is a club house at Banff that is owned by a joint stock company of members and leased to the club. Club members receive from the Canadian Pacific railway a single fare round trip from anywhere in Canada for the annual outing. The meeting took place around the campfire. Vice-president Patterson had charge of the camp in the absence of Mr. Wheeler, president and director. He proved himself a very hard working gentleman, met all new arrivals with a handshake, directed them to the annex to the dining tent if it was outside the regular meal hours, told them where the secretary was to be found, and even called the early parties at 4 o'clock in the morning for breakfast. I do not think that he was out of camp for two hours during the nine days. Mr. Forde, chairman of the climbing committee, was a very capable gentleman, who with two others on his committee gave all members a chance to graduate. Mr. Forde was out on a rope himself every day on the same mountain, and finally as his own reward he went over with two or three others to climb Popes Peak, but the guides would not take them up as the snow was not safe, due to much rain. Much rain fell during the camp, but generally at night. Tents are more necessary than in our Coast mountains.

There were 63 members graduated this year.

The tents furnished by the club are round ones, similar to the army tent, and capable of accommodating about eight persons per tent.

Active or associate members paid $2 a day—others, including any who failed to graduate, paid $3 a day, so that any who came in for leisure around camp paid $1 a day more than the climbers. One representative from any other mountain club is put on the same standing as active members. A very pleasant feature was the fact that members and visitors came from all over America and Canada. There were about eight Appalachians, one Mazama, one American Alpine, and one Mountaineer. The Alpine Club members came from all over Canada and the eastern states.

The campfires were a pleasant feature, with a new chairman every evening, generally some well known member or visitor.

I do not think there were as many flowers as in our mountains, nor as large timber in the valleys, and not as much snow on the mountains. The prettiest lakes and rivers and the most rugged mountains I have ever seen are the ones in the vicinity of the Alpine Club camp.

THE OLYMPIC NATIONAL MONUMENT.

Edmond S. Meany.

The Mountaineers are deeply interested in the Olympic National Monument and they are justly proud of their success in working for its creation and maintenance. While earnestly enthusiastic they are by no means eccentric or foolish in their attitude. They have never favored the locking up of needed resources. They strive to lead rather than to hinder the advance of real progress. It would be well to record here the steps by which the Monument was created and then discuss the present situation.

In the Fifty-ninth Congress (1905-1907) acts were passed to make provision for the erection of monuments to the memory of John Paul Jones and other heroes and one other act (Chapter 3060, page 225) was entitled: "An Act for the Preservation of American Antiquities." Its provisions are as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who shall appropriate, excavate, injure or destroy any historic or prehistoric monument or ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall, upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court.

Photograph by R. D. Glisan

MT. HUBER, 11,041 FT.—WIWAXY PEAKS, 8,869 FT.

Photograph by P. M. McGregor

View from the side of Mt. Daly showing Sherbrooke Meadows, the camp is behind the bluff and below. The mountains showing from left to right are Victoria, 11,355 ft., Lefroy, 11,220 ft., Cathedral, 10,454 ft., Ogden, 8,795 ft., and Sherbrooke Lake in the center.

"Sec. 2. That the President of the United States is hereby authorized, in his discretion, to declare by public proclamation historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated upon the lands owned or controlled by the Government of the United States to be national monuments, and may reserve as a part thereof parcels of land, the limits of which in all cases shall be confined to the smallest area compatible with the proper care and management of the objects to be protected; Provided, That when such objects are situated upon a tract covered by a bona fide unperfected claim or held in private ownership, the tract, or so much thereof as may be necessary for the proper care and management of the object, may be relinquished to the Government, and the Secretary of the Interior is hereby authorized to accept the relinquishment of such tracts in behalf of the Government of the United States.

"Sec. 3. That permits for the examination of ruins, the excavation of archaeological sites, and the gathering of objects of antiquity upon the lands under their respective jurisdictions may be granted by the Secretaries of the Interior, Agriculture and War to institutions which they may deem properly qualified to conduct such examination, excavation, or gathering, subject to such rules and regulations as they may prescribe; Provided, That the examinations, excavations and gatherings are undertaken for the benefit of reputable museums, universities, colleges, or other recognized scientific or educational institutions, with a view to increasing the knowledge of such objects, and that the gatherings shall be made for permanent preservation in public museums.

"Sec. 4. That the Secretaries of the Departments aforesaid shall make and publish from time to time uniform rules and regulations for the purpose of carrying out the provisions of this Act."

There are many parts of the United States where the provisions of that act would seem more appropriate than would the wilderness of the Olympic Mountains. For example, it would furnish exactly appropriate protection for the cliff dwellings and other Indian relics in the Southwest. Without realizing the availability of that law for the desired protection of the Olympic Mountains, the Mountaineers made their first move,

as indicated, by the following letter written by George E. Wright to Congressman Will E. Humphrey under date of 9 February, 1909:

"I am about to lend my support to the movement to create some kind of a National Park out of the main body of the Olympic Mountains.

"With a view to preparing some kind of a proposed bill to be introduced in Congress, I have just looked up the Act which you introduced for the establishment of a game preserve and I have read with considerable interest the proceedings in the House of Representatives as they appear in Congressional Record.

"What we had in mind was, in the Act itself, to designate the limits of the reserve. This proposition we are going over carefully with some of the Mountaineers, who are very familiar with the ground, and we propose also to go over it carefully with the men owning large bodies of timber—although thus far we have not found them interested—for we do not propose to go down into the valuable timber. We can easily create a Park having area of between six hundred and one thousand square miles without approaching the boundaries of the present forest reserve and without approaching merchantable timber, unless possibly some very small quantities where the line of the Park will cut across narrow valleys.

"The main mountain ridges will upon all sides run outside of the artificial boundaries which we shall suggest. For this reason it may be desirable in addition to creating artificial limits, to give power to the President by proclamation, to make to a limited extent, some future enlargement of these limits, as the topography of the ground may require.

"Will you kindly advise me upon the following points:

1. Would you like us to draft and submit to you, a proposed Act of Congress; or would you prefer to draw it yourself?

2. Will you give your approval to the idea of provisionally defining, in the Act itself, the limits of the reserve?

3. Will it be best to have this Park created as a game preserve, or simply as a plain National Park.

4. Is it desirable in addition to establishing in the first instance, the bounds of the reserve, to give to the President the power to enlarge these bounds?

5. What other suggestions have you to offer?

"Will you kindly have sent to us, one of the maps which, as a separate folder, accompanies the report upon the Olympic Forest Reserve? This map I desire to return to you with the proposed boundaries of the reserve indicated upon it.

"I am sending you, under separate cover, a panoramic photograph, which conveys a very good idea of the general character of the country proposed to be set apart as a reserve. The endorsement upon the back of this photograph is self-explanatory."

The photograph referred to was the excellent picture of the range made by Asahel Curtis, who was actively engaged with Mr. Wright in this enterprise. When Congressman Humphrey received that letter and the accompanying photograph he laid both before President Roosevelt, who at once turned to the law for National Monuments for authority, and under date of 2 March, 1909, issued the following proclamation:

"WHEREAS, The slopes of Mount Olympus and the adjacent summits of the Olympic Mountains, in the State of Washington, within the Olympic National Forest, embrace certain objects of unusual scientific interest, including numerous glaciers, and the region which from time immemorial has formed the summer range and breeding grounds of the Olympic Elk (Cervus Roosevelti), a species peculiar to these mountains and rapidly decreasing in numbers;

"Now, Therefore, I, Theodore Roosevelt, President of the United States of America, by virtue of the power in me vested by section two of the Act of Congress, approved June eighth, nineteen hundred and six, entitled, "An Act for the preservation of American antiquities," do proclaim that there are hereby reserved from all forms of appropriation under the public land laws, subject to all prior valid adverse claims, and set apart as a National Monument, all the tracts of land, in the counties of Jefferson, Clallam, Mason and Chehalis, in the State of Washington, shown as the Mount Olympus National Monument on the diagram forming a part hereof, and more particularly located and described as follows, to-wit:

* * * * *

"The reservation made by this proclamation is not intended to prevent the use of the lands for forest purposes under the

proclamations establishing the Olympic National Forest, but the two reservations shall both be effective on the land withdrawn, but the National Monument hereby established shall be the dominant reservation and any use of the land which interferes with its preservation or protection as a National Monument is hereby forbidden. Warning is hereby given to all unauthorized persons not to appropriate, injure, remove, or destroy any feature of this National Monument, or to locate or settle upon any of the lands reserved by this proclamation.

"IN WITNESS WHEREOF, I have hereunto set my hand and caused the seal of the United States to be affixed.

"Done at the City of Washington this second day of March, in the year of our Lord one thousand nine hundred and nine, and of the Independence of the United States the one hundred and thirty-third.

THEODORE ROOSEVELT."

This met with general applause throughout the Northwest and the Mountaineers felt secure in the fruits of their labors in that direction until there arose complaints that prospectors and miners were hindered in their efforts to secure the mineral wealth supposed to exist within the Monument. This objection was promptly met in a characteristic way by the Mountaineers.

When Walter L. Fisher, Secretary of the Interior, visited the Northwest he sought information about the Olympic National Monument as he did about other matters within his jurisdiction. Asahel Curtis and George E. Wright were asked to serve as a committee of the Mountaineers to present the facts to Secretary Fisher. The club wished to advocate every reasonable wish of the miners. A conference was held by representatives of the various commercial bodies and organizations interested and it was amicably agreed to work together to procure the following general objects: To change the Olympic National Monument into the Olympic National Park; to have the United States Geological Survey make a careful survey of the park as to its mineral resources; to permit mining and prospecting under proper regulations within the park; to adjust the boundaries so as to include the summits of the mountains and as little as possible of lands useful for agriculture or forestry.

Photograph by H. A. Fuller

MOUNTAINEERS IN THE GOAT ROCKS

Surprise and gratitude were expressed by the others interested that the Mountaineers took such liberal ground on questions naturally dear to them. Such has always been the attitude of the Mountaineers. They want to save generous playgrounds for the whole people. The time is already upon us when such attractive parks are appreciated. As the population and tourist travel increase so will increase the intrinsic value of such parks. Anyone at all familiar with the conditions in Switzerland, California, the Yellowstone Park and elsewhere know that the whole Puget Sound country is destined to become an alluring place for travelers and that such visitations help enormously to develop and embellish the region visited.

There are now thousands of people in various parts of this Republic who have enjoyed visits to the Mount Rainier National Park. They would rebel vigorously against any attempt to harm that wonderful beauty spot of earth. As methods of approach are improved there will arise other thousands who will be equally loyal to the Olympic National Park.

The Mountaineers wish to help in every way possible to build trails and roads into these parks and to safeguard the beauties of nature there for the free enjoyment of all the people.

Photograph by R. J. Hagman

Plate XII.

Copyright Asahel Curtis

On the road to Mt. Rainier.' This shows a portion of the road that the Government has just completed to timber-line on the southern side of the mountain. It has cost $240,000 to complete the 25 miles of roadway and a large appropriation should be made to widen and improve it.

Plate XIII.

Copyright Asahel Curtis

Spray Park on the northwest side of the mountain. This vast park is now reached only by a poor system of trails and this region should be opened as quickly as possible. No road work can be done until surveys are made and therefore it becomes necessary to decide upon the system of roads for the whole park and then work out these details. In this way a complete road system will be possible.

Plate XVIII.

Photograph by H. B. Hinman

Some very successful outings have been planned by the Everett Mountaineers. The picture shows them on a snowfield below the summit of Mt. Pilchuck.

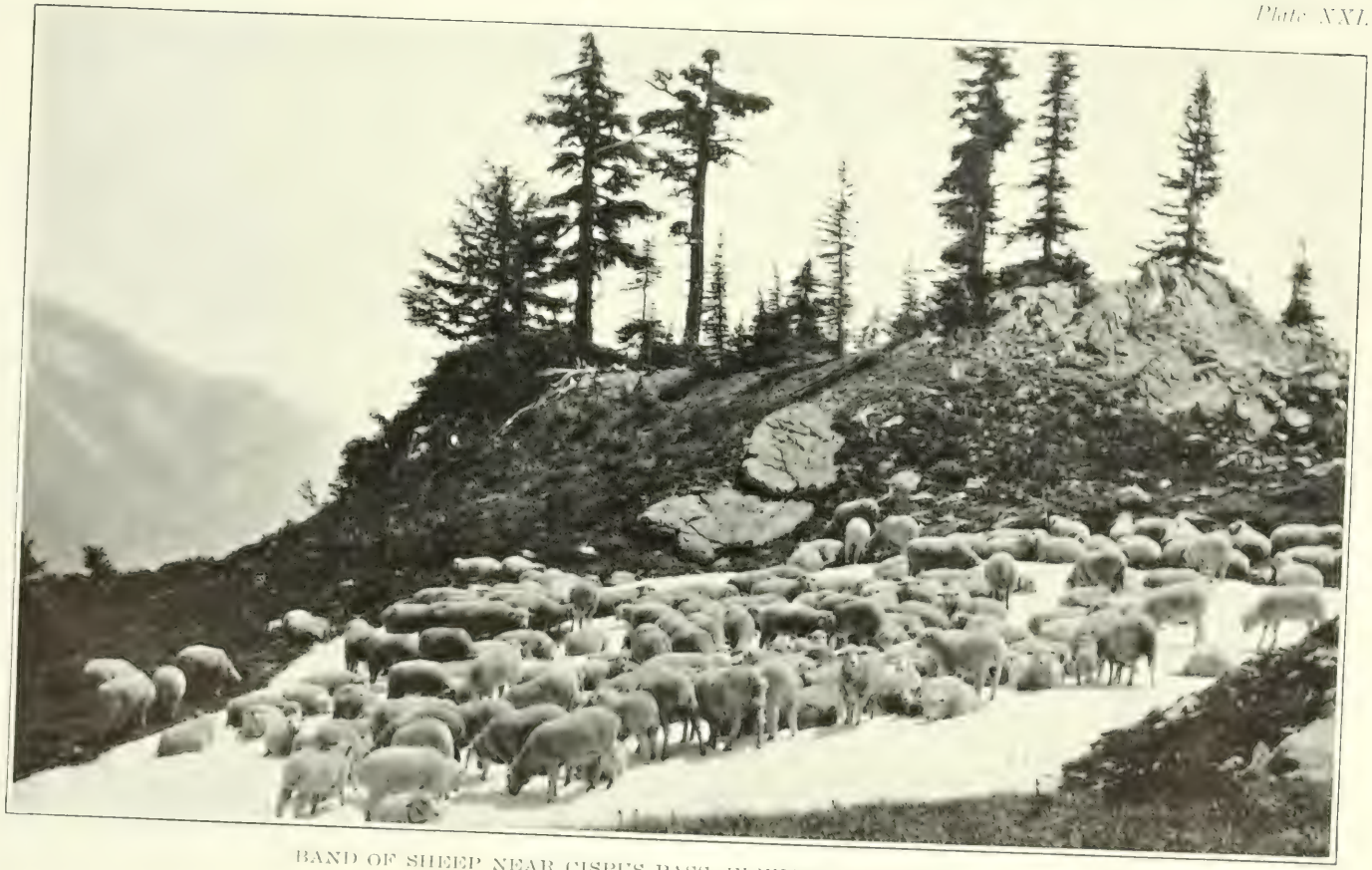
Plate XIX.

Photograph by William H. Gorham

THE MOUNTAINEERS BEGINNING THE ASCENT OF MT. ADAMS

ABOVE KLICKITAT MEADOWS

Photograph by R. J. Hagman



BAND OF SHEEP NEAR CISPUS PASS, ELEVATION 6,000 FT. Photograph by Charles Albertson

Photograph by H. V. Abel

SNOW CORNICE ABOVE KLICKITAT GLACIER, MT. ADAMS

WHITE BARK PINE (PINUS CONTOR

Photograph by A. H. Denman

IN THE RAINIER NATIONAL PARK

The Mountaineer

Volume Four

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NOTES OF OTHER CLUBS.

Glacier Peak Outing of the Mazama Club

The Mazamas, about forty in number, left Portland the morning of August 2d, 1911, for Seattle, and on to Wenatchee that night, taking the steamboat up the Columbia the next day to Chelan Falls; staged up to Lakeside, and from there a small steamer took them up Lake Chelan to Stehekin, at the upper end of the lake, arriving that evening, August 3d.

They left the next day, proceeding to Bullion, ten miles up the Stehekin river, where they camped over night at the fork of Bridge Creek and Agnes Creek trail, near the ranger's cabin. The next day they walked over the trail, up the south fork of Agnes Creek, to a cabin several miles below Cloudy and Suiattle passes. The day following they kept on over Suiattle Pass, down the canyon, to the ford below Glacier Mine, and over the two divides to Buck Creek Pass, where the main camp was established at the same place the Mountaineers had chosen the year previous.

The weather going in was cloudy and threatening, with fog and occasional showers, but cleared the second day after making the main camp.

The writer came into camp several days late, having come down from the outing of the Alpine Club of Canada, where he represented the Mazamas, and met P. M. McGregor, representing the Mountaineers, who will confirm the statement that the Canadian Rockies is a most alluring place for mountain enthusiasts to visit.

I arrived in camp August 11th, the day the Mazamas made their official climb. They had left camp the day previous, following the Mountaineers' trail over Little and Big Suiattle, across Chocolate Creek, and up the ridge above Chocolate Glacier, making camp a few hundred yards below the site selected by the Mountaineers. After a successful climb on August 11th, all making the summit, four of the party returned to the main camp the same day, the others staying over night at the upper camp and returning leisurely the next day.

The next morning a party of six, two ladies and four men, with sleeping bags and provisions, started on a knapsack trip for Glacier Peak, taking the route the main party had taken, and reaching their camp site about three o'clock. We were just below the ridge rising from Chocolate Glacier in a small mountain meadow near the snow line looking out over a deep canyon with an extensive view of the ranges beyond which we enjoyed to the utmost. I have ascended over twenty snow peaks, but have never seen such perfect cloud panorama as we experienced climbing Glacier Peak. We rose at three o'clock, started at 4:30, followed the ridge through such heavy fog as to make us speculate if we could follow the back trail should we be obliged to turn back. Soon we noticed the fog was growing lighter, and sud-

denly we came out above the fog, and what had been a cold, cheerless fog proved a sea of wonderful billowy clouds, with peaks rising like small islands from an angry tempest-swept sea, the clouds rolling up to where we stood, threatening to sweep us off our feet, the rising sun tinting the crest of the billows a delicate crimson. Coming as it did after the gloom and chill we had just passed through, the contrast was overpowering. All the way up, over the glacier, we repeatedly looked back. From the summit we could easily make out Baker, Rainier, St. Helens and other peaks above the clouds, and the latter breaking, we could look down into the canyons and timbered valleys far below. We made the summit at 9:10, stayed an hour, and descended to main camp at 11:50, and after a brief rest and lunch, took the back trail, arriving at Buck Creek camp about seven that evening. I mention the time, as it may be of interest to the Mountaineers, who preceded us the year previous, and greatly helped us by the trails they had blazed to Glacier Peak.

The Mazamas broke main camp the next morning, August 16th, and camped that evening below Cloudy Pass, stayed over an extra day to give all an opportunity to visit Lyman Lake and Glacier, and then retraced their way down Agnes Creek, stopping at Bullion over night, and reaching Stehekin at noon the next day, August 20th.

The Mazamas left that afternoon for Lakeside, caught the steamboat at Chelan Falls next morning, the train at Wenatchee that afternoon, and were back in Portland Monday morning, August 21st.

R. L. GLISAN

Appalachian Camp at Whiteface

The Appalachians spent about two weeks during this summer among the summits and trails of the Sandwich range, just north of Lake Winnipesaukee. There were about thirty members in the party and nearly twenty made the climb of Whiteface and Passaconaway, about 4,000 feet high. The club maintains a small shelter at the foot of the cone of the mountain in which as many spent the night as the size of the shelter would permit. Fourteen of the party climbed Sandwich dome, which made a good half day climb. The program for the last week included a climb to Chocorua, a day at Bear Camp Pond and an overnight temporary camp at Black Mountain Pond, high up under the south knob of the mountain. The character of eastern mountain climbing as compared to climbing hereabouts is well indicated by the following reference to the path being marked by a sign: "Any who think of tramping in to Flat Mountain Pond from Whiteface should inquire the way, since the wood road leading to the path is not marked with a sign." The Appalachians maintain a number of huts and camps about the White Mountains for the use of whoever may pass.

Activities of the Sierra Club During 1911

The 1911 outing of the Sierra Club was held in the Yosemite National Park. A preliminary camp was established in Yosemite Valley for the two weeks preceding the main outing. The unusually high water in the streams made a wonderful spectacle of the falls this year and the

valley was crowded with visitors. On July 7th the main outing party left San Francisco, reaching Yosemite Valley the next day. The morning of the 10th the Yosemite camp was struck and the start made for the high country. One hundred and eighty-five members were on the outing list, and with the addition of cooks, packers, and assistants the party numbered over two hundred persons.

The first camp was made in Little Yosemite, and the second at Lake Merced, where two days were devoted to the exploration of the upper Merced Basin and the climb of Mt. Clark (11,506). Thence the party traveled across Vogelsang Pass and down Rafferty Creek to the Tuolumne Meadows, a most beautiful and spacious mountain garden spot about 9,000 feet in elevation, which is the finest camping ground in the Sierra and so located that an almost unlimited number of trips may be taken from it. Ascents of Dana (13,050), Lyell (13,090), Ritter (13,156) and Conness (12,556), trips to Tioga Lake for fishing or down the Bloody Canyon to the volcanic regions about Mono Lake, fishing parties up and down the Tuolumne River, picnics on Lambert's Dome, or swimming in Dog Lake filled to overflowing the five days that were spent there. A two days' camp at the mouth of Conness Creek gave an opportunity to visit the more wonderful falls near the head of the Tuolumne Canyon before setting out on the trip that was the main feature of this outing—the circuit of the northern portion of the park. For more than a week camp was shifted nearly every day. Matterhorn, Kerrick, Stubblefield and Tilden canyons, Rogers, Benson and Tilden lakes were visited, Piute Mt. and Rancheria Mt., Matterhorn and Tower Peak were climbed and then the party journeyed to Hetch Hetchy, remaining there for three days before taking the homeward trail via Crockers and the Merced and Tuolumne groves of sequoias to El Portal. No accidents marred the trip and the only inconvenience suffered was from one or two heavy thundershowers whose wonderful cloud scenery more than compensated for the temporary discomfort.

The Le Conte Memorial Lodge opened as usual on May 15th and was maintained for three months as the club's Yosemite Valley headquarters. Several valuable additions have been made to the library and equipment of the Lodge and the fact that more than 5,000 people visited it last summer shows that it is gaining an important place for itself in the valley. A herbarium was installed this summer and a complete collection of Yosemite wildflowers will be secured as soon as possible. Maps and photographs of the High Sierra are on display there and information regarding trails and camping places freely given. As interest in the more unfrequented portions of the Yosemite National Park is increasing each year the Lodge's usefulness is only in its beginning.

The weekly local walks in the vicinity of San Francisco continue to hold their popularity and a similar movement has been started in Southern California. The average attendance in the Bay region is about fifty, pleasant days often calling out as many as eighty or ninety. A feature that grows in favor is the over-night trip, taken

to embrace all holidays falling on a Saturday or Monday, and also a Saturday afternoon and Sunday trip each month when the moon is near the full. Some of the points thus visited have been Mt. Diablo, Mt. St. Helena, the Big Basin (Santa Cruz Mts.), the Redwood Grove of the Bohemian Club and the Armstrong Big Tree Grove along the Russian River, Duxbury Reef at Bolinas, Inverness (on Tomales Bay), Bear Valley, La Honda and Potrero Meadows. Some of these have been taken as pure knapsack trips, in others the over-night stop has been made at a hotel, and on still others some of the party have knapsacked while others have remained at a hotel. Though hardly to be classed among the "local" excursions one of the activities planned by the Local Walks Committee was a mid-winter trip to Yosemite Valley, which gave about twenty dwellers in the Bay region the novel experience of ice skating, skeeing, coasting and snow balling.

MARION RANDALL PARSONS

Swiss Alpine Club

There is plenty of good work going on in Switzerland in the way of true alpinism. A Zurichose mountaineer, M. Triek, of the Uto section of the Swiss Alpine Club, ascended on July 30, for the first time this year, the difficult and dangerous pass of Crast'Aguzza, between the Morterasch Glacier and the upper Scerscen Glacier, in the Bernina group. The section Diablerets early in August made its regular excursion to the Grisons, climbing in considerable numbers Piz Segnes, near Flims (10,174 feet) and Sardona, about fifty feet lower.

The Diablerets section has been in evidence against this season, this time at Zermatt, where, on August 7, ten members, having for guests two of the Montreux section, climbed the Matterhorn without a guide. It was a gala day for the grim old mountain, for not less than thirty-two persons were on its summit, and at the hut it was necessary for half of the company to sleep out of doors. It was stormy in the night, but no one was the worse.

The convention of mountain climbing clubs called by the Honolulu Trail and Mountain Club was held in Honolulu during the week from February 22d to February 28th, 1911. The meetings were very informal in their nature. The desirability of some joint action by the clubs on the Coast giving a member of one club temporary rights and privileges of their clubs when visiting the other places was discussed and it was the sense of the meeting that such courtesy should be extended as far as possible.

The Pan Pacific Congress held a convention at the same time and place and they have under consideration the establishing of permanent headquarters in some state in the United States, possibly New York, and the suggestion was made to the mountain climbing clubs to have desk room there where any one interested could secure information regarding the work done, trips taken and contemplated, and could read the magazines and bulletins which would be filed.

NOTES.

PERMANENT FUND. Article XI of our new constitution provides that "all membership dues, initiation fees and gifts, unless otherwise stipulated by the donor, together with such amounts from the organization funds as the board may direct, shall constitute a permanent fund. This shall be safely and separately invested and the income only used." The nucleus of the new fund is $33.00, now drawing interest.

MOUNTAINEERS AND BOY SCOUTS. Major E. S. Ingraham, veteran mountaineer and Scout Commissioner of the Boy Scouts of America in Seattle, asks the co-operation of the Mountaineers in his work in the latter organization, and no movement of recent years is more worthy of our encouragement.

The three-fold aim of the Scouts is, strengthening the body, training the mind, and building up the character, and is based upon the practical idea of leading a boy to be thorough, honorable, and alert in his play and to be thoughtful of others. It shows him how to gain skill in play by learning many useful things. It relies on the psychological fact that the boy, with his irresistible curiosity, turns in fun to inquire into many things that have a practical and educational value.

The boys by becoming Scouts have an opportunity to learn woodcraft, gain knowledge of birds and trees, learn the secrets of the woods, to swim, paddle a canoe, and do many other things boys love to do. At all times they have over them a Scout Master, whose credentials have been approved, and who is really their physical, mental, and character trainer. He watches over them and guides them in their play and their various activities, trains them in alertness, self-reliance, and other Scout virtues. His aim is to turn out useful, self-reliant, alert, honest citizens.

The Scout "oath" or promise says: "On my honor I will do my best—1. To do my duty to God and my country, and to obey the Scout Law; 2. To help other people at all times; 3 To keep myself physically strong, mentally awake, and morally straight."

The Scout Law has twelve planks, and if a boy obeys them he will be an excellent Scout. The points are:

1. A Scout is trustworthy.
2. A Scout is loyal.
3. A Scout is helpful.
4. A Scout is friendly.
5. A Scout is courteous.
6. A Scout is kind.
7. A Scout is obedient.
8. A Scout is cheerful.
9. A Scout is thrifty.
10. A Scout is brave.
11. A Scout is clean.
12. A Scout is reverent.

Major Ingraham's greatest need just now is for men to look after the patrols. Mr. Jack Morrill, a Mountaineer, has become an enthu-

siastic Scout Master and other volunteers for like services are desired. Surely there is a great work for the Mountaineers in co-operating in the splendid work of making good citizens, and training good material for future Mountaineers.

"—"

The Research Committee of the National Geographic Society has made an appropriation of $5,000 from the research fund to continue the studies of the Alaska glaciers which were conducted by the society in 1909 and 1910. The work this year was in charge of Prof. Ralph S. Tarr of Cornell University and Prof. Lawrence Martin of the University of Wisconsin.

"—"

While Mt. McKinley is the highest peak in North America it is also remarkable in having the longest snow and ice slope of any of the world's great mountains. This mountain demands about 18,000 to 19,000 feet of snow and ice work, while Mount Everest, the world's highest peak, has a perpetual snow line of between 17,000 and 18,000 feet, leaving only 11,000 to 12,000 feet of snow. The Parker-Browne expedition to Mount McKinley spent fifty nights continuously on snow and ice, and experienced difficulties as great in attaining an elevation of 10,300 feet as any to be encountered in reaching an altitude of 20,000 feet in the Himalayas.

"—"

The Sierra Club of California has recently accomplished important work in the planting of trout in fishless lakes and streams. The club took up this work several years ago, co-operating with the California Fish and Game Commission. In a few years the regions planted will become a veritable "fisherman's paradise". A large sum was appropriated for the work, which enabled them to equip two pack trains with specially built cans and other necessary apparatus.

"—"

The "Mountaineer" department of the Boston Transcript, conducted by John Ritchie, Jr., is a veritable clearing house of mountain information.

"—"

Miss Dora Keen, who attempted the ascent of Mt. Blackburn in Alaska last summer and was compelled to return on account of insufficient supplies, has a splendid record as a climber in the high Alps in the summer of 1909. In summarizing and contrasting her 16 climbs, she ranks the Matterhorn as the hardest, because it was so long under the conditions that they had, and was hard all the time, but the Chamonix guides do not admit that it is harder than the Aiguilles. In general, except for the Matterhorn, the ascents at Chamonix were

harder, more interesting, and more of an anxious strain than those at Zermatt.

"—"

The frontispiece of this issue was done by Mr. A. H. Denman and Mr. A. H. Barnes of Tacoma.

"—"

"Awards for mountain climbing achievements," is the novel announcement made by the Swedish Olympic Committee, in connection with the fifth series of International Olympic Games which will occupy a month the coming summer—June 29 till July 22—at Stockholm. The Swedish committee has decided to award a gold Olympic medal for the finest performances during the years 1908-1911 in game shooting and mountain ascent, respectively. This is an innovation in that it places mountaineering very properly in the sports and fortunately in a way free from the arbitrary rules that so often give athletic awards to the most tricky rather than to the most meritorious. The leading alpine clubs in the world have the right to propose candidates for these prizes. The judging will be carried out by a special jury, the decision of which shall be in the hands of the Swedish Olympic Committee at latest by June 1.

"—"

Mr. P. M. McGregor was the Mountaineer representative on the outing of the Alpine Club of Canada for 1911. It is hoped that a regular exchange of guests with other clubs may be instituted.

"—"

The Sierra Club Bulletins of 1911 are splendid mountaineering journals and show the great work that organization is doing. The feature of the January, 1911, number is "Cathedral Peak and the Tuolumne Meadows," by John Muir. This article is an extract from the author's journal, "My First Summer in the Sierra," published this spring by Houghton, Mifflin Company, Boston, with illustrations by the author and Herbert W. Gleason.

"—"

Refreshing as a mountain breeze comes Prof. Meany's collection of poems, "Mountain Campfires". Most of the verses were written for the Mountaineer campfires of the various outings and will be welcomed by the Mountaineers as a delightful reminder of charming days in the open and delightful hours of rest around the evening fires. The poems include a sonnet to Mt. Rainier, poems to Mt. Adams and Glacier Peak, charming verses to the mountain flowers, trees and lakes. The book is from the press of Lowman and Hanford and is a dainty volume bound in Japanese wood veneer with an interesting poster cover design.

"—"

Beautifully illustrated by photographs and paintings by the author, "Our Greatest Mountain" is just from the press. The literary side is

largely by A. H. Denman, of Tacoma, including "Outdoors in Western Washington," "The Mountaineers," and "The Mountain," incorporating Prof. Meany's poem "The Law of the Hills". Mr. Barnes is to be congratulated upon the artistic beauty and general excellence of workmanship. The book is destined to exert a wide influence and will prove a valuable addition to any mountain lover's library.

"—"

A second edition of "The Mountain that was 'God'," by John H. Williams, of Tacoma, is just from the press of G. P. Putnam's Sons, New York and London. A copy recently received shows interesting additions both in the text and the illustrations. We predict for the volume an even more extended popularity than the earlier edition and increased influence in attracting attention to our national park and the great "Monarch of the Coast".

RESOLUTIONS.

WHEREAS: Our Almighty Father has called to rest our associate, and

WHEREAS: Frank S. Southard was an earnest, active, and helpful member of The Mountaineers from the beginning of the club's organization to the hour of his death; therefore be it

RESOLVED: By the Board of Directors in meeting assembled for this special purpose, that we give expression to our appreciation of his noble qualities of manhood, to our sorrow over his being called up the last long trail, and to our sympathy with members of his bereaved family; and be it further

RESOLVED: That we invite all the members of The Mountaineers to assemble at the time and place designated for the funeral that we may give to our departed friend a last tribute of respect.

"—"

WHEREAS: The fifth annual outing of the Mountaineers is about to close; and,

WHEREAS: This outing has been in all essentials highly pleasurable owing not only to the scenic character of the route selected but also to the excellent camp management; and,

WHEREAS: The trip has presented unusual and unexpected difficulties calling for exceptional services and sacrifice on the part of many committees and individuals; therefore, be it

RESOLVED: That we acknowledge our appreciation particularly:

FIRST: To those who originally gathered the information and projected the route.

SECOND: To the present outing committee whose untiring energy and painstaking efforts have overcome all obstacles and brought the outing to a successful consummation.

THIRD: To David McColl, the sheep herder, Albert Bertschi, the forest ranger, and Hugo Kuhnhausen of Lewis, who rendered invaluable services in overcoming unforeseen difficulties.

FOURTH: To those who accompanied the pack train in to Langmire Springs and gave freely of their time and energy in outlining the best possible course.

FIFTH: To the scouts and all others who were called upon or volunteered to make extra trips for the benefit of the party or of individuals for whose welfare the party felt responsible.

SIXTH: To the doctor and nurses who rendered gratuitous professional services.

SEVENTH: To the program committee and all who in any way contributed to the camp-fire program, especially to our gifted president whose Indian lore and nature verses have added a peculiar charm and interest to our evening gatherings.

EIGHTH: To the packers to whom fell the arduous labor of transporting our provisions and dunnage over well-nigh impassable trails and completed the task without accident of any kind.

NINTH: To the chef and his capable assistants, "who worked while their companions slept", and whose skill, industry and splendid management added to their enviable record gained on previous trips.

AND FINALLY: To the many who have not otherwise been mentioned but who have cheerfully and unselfishly given of their strength and talent to make this outing one of the most memorable the club has ever undertaken; and be it further

RESOLVED, That these resolutions be made a part of the records of the club and printed in the official publication and that copies be sent to Mr. McColl, Mr. Bertschi and Mr. Kuhnhausen.

ROBERT E. MORITZ
WINONA BAILEY
GERTRUDE INEZ STREATOR
A. H. BRACKETT
WINIFRED MACFARLAND
Committee on Resolutions

CORRESPONDENCE.

When in Seattle on his way to Alaska, Secretary of the Interior Walter L. Fisher asked Mr. Asahel Curtis to prepare a list of suggestions for the Rainier National Park. Such a list was prepared and submitted to him. Some such plan of action should be decided upon and a strong committee put at work to see that it is carried out They should have the support of the club members until the Mountaineers are recognized as a power that must be reckoned with in all affairs pertaining to the mountains.

As Secretary Fisher writes, it is necessary to get the people of the state of Washington interested in this and get the appropriations through Congress. The Secretary of the Interior has recommended appropriations for the park many times, but there has been no support of his recommendations and they have failed of congressional approval. A recommendation has been included in the Secretary's report this year. It is now up to the people of the state that it does not fail in Congress.

November 9, 1911

Dear Sir:

I have been examining your communications of September 7th and 8th, with regard to Rainier National Park, and am very much interested in them. I find, however, that practically all of your suggestions will require funds that are not now available. Indeed, the entire question of what is to be done at the Rainier Park depends so very largely upon the action of the next Congress with regard to the appropriations and also the creation of the proposed Bureau of National Parks, that I suggest that you take it up with the people in the State of Washington who are interested and see what can be done to secure from Congress the necessary legislation and appropriations. It will give me very great pleasure, indeed, if Congress enables us to put the national park administration on an efficient basis, and if adequate funds are supplied to develop these parks as they should be developed.

I believe that Inspector Keys, of this department, is now in the Rainier Park making an investigation, the result of which will be reported for our use before the Appropriations Committee.

Thanking you for your kind expressions with regard to myself, I am,

Sincerely yours,

(Signed) WALTER L. FISHER,

Secretary

Suggestions for work in the Rainier National Park in the order of their importance:

1st. The creation of a Bureau of National Parks and the appointment of a National Park Commission.

2nd. The organization of a definite project for the construction of trails and roads within the National Park in order that all work done

in its development be toward some definite end, and be of permanent value. This project should consist of two separate divisions, one for trail work and one for roads. The trail work seems to be of first importance, for at present the park is practically at the mercy of a fire and large areas are closed to all travel.

The following project is suggested for the park, the subjects being given in the following order of their importance:

1st. The opening of the old trails on the mountain, where such trails are on the general line of travel, and the establishment of new trails to enable the park rangers to go from one park on the mountain to another without making the long detour to the lower valleys now necessary. This trail work seems very necessary to afford fire protection, for as the trails now exist it would, in many cases, take a day or two to reach a fire that was only a few miles away. A proper system of trails would triple the value of the rangers.

2nd. Widening the present road from the park entrance to Paradise Valley to a width of sixteen feet and the construction of parapets at dangerous points, to prevent autos and stages from going off grade. (This recommendation is made because it is now practically recognized that this road is creating a new situation in national parks affairs, and that it will not long be possible to keep the autos off the mountain road above the glacier. The fact that the park is close to two big cities and that a large auto traffic is already making use of the road to the glacier, is in a measure forcing the situation.) At present this road is not safe for the combined traffic that is permitted to use it, that of stages and autos. The road was built as a stage road and later autos were permitted to use it. Now that such permission has been given the only safe course to take is to make it wide enough to accommodate both kinds of travel.

3rd. The extension of the present road from Paradise Valley along the route suggested by Eugene Ricksecker through Magnetic Park and around the Cowlitz Glacier to Cowlitz Park on the southeast side of the mountain. This road should be connected with the road system of Yakima County to enable the people of eastern Washington to visit the National Park.

4th. The extension of the present road from some point above Longmire through Van Trump Park to Indian Henry's Hunting Ground. This would open up one park that is now inaccessible to any form of travel except afoot across ice-fields and deep canyons.

5th. The construction of a road up the valley of the Carbon to the ice-fields and thence to Spray Park on the northwest slope and into Moraine Park on the north slope of the mountain. This country is now reached only by a system of trails that is wholly inadequate for fire protection or tourist travel. The north side is almost inaccessable at present, and in some cases if a ranger saw a fire when it started it would be two days before he could get to it.

A system of roads as given above would require years to complete and if the work was started the road would naturally continue all

around the mountain. Before such an extensive road system could be completed it would be necessary to build a very complete system of trails and it would not be advisable to make them along the line of the proposed road.

A shelter should be erected at Camp Muir at an elevation of 10,000 feet. Such a hut could be constructed from the rock that is on the ground. The cement necessary for such construction could be packed nearly to Camp Muir on horses if a short piece of trail was constructed at the base of Timberline Ridge.

Sanitary conditions should obtain at all of the mountain camps. At present there is much refuse scattered around and large piles of manure are taken out of the stables at Longmire Springs and scattered over the ground. There have been many cases of fever reported among visitors to the park this summer. I believe that a sewer system will soon be absolutely necessary, not only at Longmire but at the mountain camps.

I am not repeating the splendid recommendations of Mr. Matthes regarding the guides. It meets with my approval in every way and is so much better coming from a man who is entirely free from any local prejudice. I believe that the guides, who at present are located on the south side, would welcome such regulation. It would serve to clear up the situation.

In the matter of the patrol of the park it would seem advisable to have a company of soldiers stationed there during the tourist season. On this point Mr. Hall would be the best advised. The Mountaineers got a bill through Congress permitting the Secretary of War to loan a company to the Secretary of the Interior for that purpose, but I believe they were never detailed.

At the present time tourists are not allowed to pick flowers, yet stock is permitted to graze in the park. This has caused much adverse comment. It would scarcely seem that the little value of milk at the camp in Paradise would justify the grazing of cows there.

THE MOUNTAINEERS, 1911-12

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Roy Hurd .....1522 6th Ave.

SECRETARY'S REPORT

During the past season, the membership of the Mountaineers has increased from 314 to 376 and never before were there so many active and interested members, able and willing to do a share of the work necessary in conducting our organization. The work to be done by the different committees was necessarily augmented, but it was performed willingly, cheerfully and successfully.

The local branch at Everett was also active in keeping up its large membership and in organizing local walks and some very successful outings.

Early in the season a special committee framed a new constitution for the club. As adopted, among other matters of importance, it provides that local branches shall retain a portion of their receipts for necessary expenditures.

In outside matters the club has taken an active interest in many undertakings, some of which were commenced last year. The committee appointed at the request of Francois B. Mathes, of the U. S. G. S., to aid him in selecting names for many points of interest in the Rainier National Park, continued their work. We also continued our efforts to obtain a state park on the summit of Mt. Constitution and have taken action concerning the proposed bureau of national parks and the bills to include the King and Kern River valleys in the Sequoia National Forest, in California.

Following our endorsement of Congressman Humphrey's proposed bill providing for a change in the status of the Olympic Monument, making it a national park, a special committee was apointed to meet

Secretary Fisher in Seattle to discuss the situation with him. Later, our committee, together with representatives from the Seattle Commercial Club, Southwestern Washington Development Association, Hoquiam Commercial Club, Olympic Miners' Quinault Improvement Association and Tacoma Commercial Club, adopted the following suggestions for a plan of action in regard to the Olympic Monument and presented them to the Secretary of the Interior. They advised:

1st. The investigation of the mineral resources of the monument by a member of the U. S. G. S.

2nd. Determination by a committee of western men who are familiar with the country in the proposed park, as to proper boundaries.

3rd. Preparation through Congressman Humphrey, of a bill to be introduced in Congress, making the monument a national park, with a clause providing for prospecting and mining, the cutting of timber for mining purposes and the development of water power for the same purpose.

Our club was represented at the Mountain Climbers' Convention in Honolulu by Mr. Thurston.

CHARLES M. FARRER, Secretary

TREASURER'S REPORT

1910-1911

Receipts

Balance in Seattle National Bank	$1,140.81	
Balance in Bank of California (Outing Fund)	172.18	
Financial Secretary (Dues)	967.00	
Secretary	16.00	
Local Walks	123.06	
Advertising in 1910 Annual	96.75	
Advertising in Prospectus and Bulletin	88.00	
Miscellaneous	8.50	
Refund from Railroad (Mt. Adams preliminary trip)	10.40	
Balance from Mt. Adams Outing	42.53	$2,665.23

Expenditures

Annual Magazine, 1910	$ 555.40
Stamps for Annual	30.00
L. A. Nelson, salary 4 months	120.00
Florists	20.30
Major E. S. Ingraham (trip to Mt. Rainier)	12.40
Slides	66.35
Printing Prospectus and Bulletin	131.85
Printing notices and stationery	83.70
Addressing and mailing, stamps, etc.	54.23
Stamped envelopes	30.00
Miscellaneous	19.90
Glacier Peak reunion, 1910 (Outing Fund)	10.00

Chas. M. Farrer, trip to Mt. Rainier (Outing Fund)	17.20	
Photos for packers (Outing Fund)	7.10	
Investment, City Improvement 7% Bonds	1,042.66	$2,201.09
Balance in Seattle National Bank	$ 245.83	
Balance in Bank of California (Outing Fund)	207.91	
Balance in Bank for Savings (Permanent Fund)	33.00	
	$ 486.74	
Outstanding checks, Oct. 14, 1911	22.60	
Total cash on hand		$ 464.14

Audited:
C. G. CLARKE
H. B. LEAR

Respectfully submitted,
P. M. McGREGOR,
Treasurer

REPORT OF OUTING COMMITTEE UPON OUTING OF 1911

When the Outing Committee as at present constituted took charge in the early spring of this year, the task set before them was such as to make them consider whether a less ambitious trip should not be undertaken. The plan of the trip, however, had already been announced and so it had to be put through.

The party started numbering sixty-six, but the illness of one compelled two to turn back after the third day, leaving sixty-four members who completed the trip. This number, with three cooks and six packers, made a total party of seventy-three. Of the sixty-four members who completed the trip, thirty-six were women and twenty-eight were men, while thirty-six had not been on any previous Mountaineer summer outing.

The trip as nearly as can be computed covered a circuit of 483 miles, of which 266 were by railroad, 55 by boat and 162 were on foot. Of the 162 miles walked, 33 were over wagon roads, 76 were over good trails and 53 miles were over Indian trails, animal trails and no trail at all. While we were following the 53 miles of poor trail and no trail, we crossed the summit of the Cascades nine times and followed the summit itself for considerable distances on two occasions. During the trip the party climbed in the aggregate over 20,000 feet.

The party was in camp 21 nights in 16 different camps, six of which were in the upper meadow country in close proximity to snow. Upon only one occasion, the day of the climb of Mt. Adams, was the party after daylight in reaching camp, and there was no occasion when any part of the commissary or dunnage was after sunset in being delivered at camp.

We had no accidents of any kind and but two cases of illness. The only serious illness was that of one of our packers, Mr. Paul Kuhnhausen. We are glad to anounce that Mr. Kuhnhausen has recently reported that he has recovered from his illness.

In the matter of the finances of the trip, the amount received from the members of the outing, less amounts refunded to them for various

reasons, totals $2,938.20; while the disbursements less various miscellaneous receipts aggregate $2,919.77; leaving on hand in the Outing Fund the sum of $191.01, being $18.43 more than at the beginning of the year. Detailed statements of all receipts and disbursements are on file with both the secretary and the treasurer and all vouchers are on file with the treasurer and any member is welcome to examine them if he so desires.

Respectfully submitted,

H. C. BELT,
Chairman

REPORT OF LOCAL WALKS COMMITTEE

The local walks have increased in interest, number and attendance throughout the ten and one-half months covered by this report. Owing to this, your committee has been able to add to the range of country traveled and to the variety of trips offered.

On several walks there were interesting ten-minute talks and a number of the trips were to objects of historical or special significance.

The four special outings averaged 87 people. The average attendance for 23 Sunday walks was 83 and the average distance 11 miles. For 15 Saturday walks the average was 22 and the distance 5 miles. There was a total increase of 60% in the number of Mountaineers participating in these walks.

ROY HURD
EDWARD W. ALLEN
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Augustine & Kyer's good coffee and other dainties form a delightful feature of the Mountaineer local walks and outings.

SUMMARY OF LOCAL WALKS

No.	Date.	Route.	Leader	Distance	Attendance	Cost
94	Nov. 27, 1910	University, Pontiac and Lake Washington..	P. M. McGregor	8	69	$ .15
95	Dec. 3, 1910	*Bitter Lake, University Grounds	Winona Bailey	5	6	.25
96	Dec. 11, 1910	Port Madison, Wing Point	R. H. McKee	10	71	.50
97	Dec. 18, 1910	Sunnyside, Bellevue	Grace Howard	10	39	.25
98	Jan. 8, 1911	Juanita Bay, Derby	F. S. Southard	9	44	.25
99	Jan. 14, 1911	†Hall Lake, Bothell, Kirkland	C. S. Gleason	15	23	.50
100	Jan. 22, 1911	Vashon Heights, Lisabeula	Lydia E. Lovering	11	101	.50
101	Jan. 28, 1911	*Golf and Country Club, Bitter Lake	H. May Baptie	6	13	.24
102	Jan. 29, 1911	Bellevue, Juanita, Bellevue	Lulie Nettleton	20	12	.5
103	Feb. 5, 1911	Orillia, Angle Lake, Orillia	G. Irving Gavett	12	25	.60
104	Feb. 11, 1911	†Lake McAleer, Edmonds, Bitter Lake, Seattle	R. T. Hageman	12	23	.40
105	Feb. 19, 1911	Agate Point, Rolling Bay, Wing Point	Cora Smith Eaton	11	95	.50
106	Feb. 25, 1911	*Mercer Island, East Seattle, Appleton	Alice Fryer	5	27	.—
107	Feb. 26, 1911	Bellevue, Lake Sammamish, Renton	Mary L. Hard	22	38	.45
108	Mar. 5, 1911	Forest Park, North Creek, Silver Lake	H. B. Hinman	13	51	1.00
109	Mar. 11, 1911	*Medina, Kirkland	Lucy C. Donoghue	5	14	...
110	Mar. 19, 1911	Fauntleroy, South Park	H. W. Playter	11	119	.10
111	Mar. 25, 1911	*Bitter Lake, Bluffs, Ballard	Kathleen Gorham	5	34	...
112	April 2, 1911	Stone's Landing, Tacoma	H. C. Belt	12	133	.10
113	April 8, 1911	Hazelwood, Kirkland	H. Y. Abel	11	20	.30
114	April 9, 1911	Colby, Point Glover, Port Orchard	E. W. Allen	8	54	.50
115	April 22, 1911	*Fort Lawton, West Point Light	Elizabeth Moore	4	31	...
116	April 23, 1911	Newport, Coal Creek, Hazelwood	A. C. Nation	10	65	.30
117	April 30, 1911	Portage, Point Robinson Light, Raeco	G. T. Williams	5	200	.70
118	May 6, 1911	*Bird Study Walk—Curtis, Juanita	Adelaide Pollock	5	26	...
119	May 7, 1911	Violet Walk—Spanaway Lake, Tacoma Prairie	Christine Cameron	8	49	.85
120	May 14, 1911	Tulalip Indian Reservation, Lake	Mabel E. Odell	7	130	.75
121	May 20, 1911	*Bailey Peninsula	June Oakley	5	12	...
122	May 21, 1911	Rhododendron Walk—Hidden Ranch	Mary R. Paschall	5	237	.50
123	June 10, 1911	Pleasant Beach, Port Blakeley, Eagle Harbor	Clara A. Dayton	7	28	...
124	June 11, 1911	Youngstown, Fauntleroy Park	F. Q. Gorton	14	34	.10
125	June 17, 1911	*Schmitz Park, Fauntleroy Cove	J. M. Schoregge	5	136	...
126	June 25, 1911	McKenna Falls	Wm. H. Rees	8	53	.50
127	Sept. 17, 1911	Curtis, Redmond	Mabel Furry	10	51	.35
128	Sept. 30, 1911	*Haller Lake to Univ. of Wash.	Susanna Kellett	5	24	...
129	Oct. 1, 1911	Bellevue, Lake Sammamish	Dr. W. B. Power	13	89	.25
130	Octo. 7, 1911	*Mt. Baker Park Boulevard	Elizabeth Kirkwood	6	8	...
131	Oct. 15, 1911	Apple Tree Cove, Chief Seattle's Grave	Edward K. Triol	10	123	.50
		SPECIAL OUTINGS.				
11	Dec. 31— Jan. 2, 1911	Bide-a-Wee in the Cascades	L. A. Nelson	..	45	8.00
12	July 4, 1911	Whidby Island	H. A. Fuller	...	80	.75
13	Sept. 2, 3, 4, 1911	San Juan Islands, Mt. Constitution	G. Roy Hurd	..	88	4.00
—	June 17, 1911	‡Fauntleroy Camp Fire	J. M. Schoregge	..	136	.10

*Saturday afternoon. †All day and half day Saturday combined. ‡Saturday afternoon and camp fire.

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The main range of the Rocky Mountains extends from north to south through the park, and within this region is compressed a variety of mountain scenery, unsurpassed for beauty and grandeur in this country or Europe.

Within the limits of the park are 250 lakes, ranging from twelve miles to a few hundred feet in extent, noteworthy among them being Lakes McDonald, St. Mary, Iceberg, Louise, McDermott and Kintla. There are more than sixty massive living glaciers between five square miles and a few acres in area. Blackfoot, Harrison, Pumpelly, Sperry and Chaney Glaciers are the most important. The mountain peaks range in height from seven to over ten thousand feet. The view from Lincoln Peak or Gunsight Pass, both accessible to the tourist, is a magnificent one covering a hundred miles of the main range of the Rocky Mountains.

There are two entrances to the Park—one at Belton, and the other at Midvale, both located on the main line of the Great Northern Ry. Special roundtrip excursion rates are made from all points East and West to Glacier National Park during the season. Any Great Northern agent will gladly give you particulars regarding fares and accommodations, as well as supply you with literature describing Uncle Sam's newest playground, which is destined to become the greatest attraction for tourists on the North American continent.

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Mt. Adams Number

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SECOND RAINIER NUMBER

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VOLUME V · 1912

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Publication Committee

1912

Lulie Nettleton, *Editor*

A. H. Albertson, *Business Manager*

Winona Bailey, *Historian*

Helen Gracie

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The Mountaineer

Volume Five

Nineteen Hundred Twelve

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THE MOUNTAIN FROM GRAND PARK
Lydia Lovering

View taken at an elevation of 6000 feet, looking southwest ten miles to Mt. Rainier rising abruptly more than 8000 feet above the point of view. Aug. 14, 1912.

SHOWING ANOTHER VIEW OF THE MOUNTAIN LOOKING SOUTH FROM CRESCENT MOUNTAIN OVER THE SLUSKINS.

Copyright A. H. Denman
AUG. 6, 1912

Greetings:

From
John Muir
and
Enos Mills

Salutation:

Good luck to your club
God guide your climbing,
every footstep, mindstep &
heartstep, & lead you ever
nearer to both heaven &
earth.

Faithfully Yours
John Muir.

Salutation:

ENOS A. MILLS
LONGS PEAK, ESTES PARK
COLORADO

October , tenth, 1912

To The Mountaineers:

Scenery is the greatest of natural resources and there could hardly be a more useful activity than that of arousing interest in it. Nature is ever democratic, ever sanitary, ever recreative and always cheering. It is the best of company and in the nature of things there cannot be a more laudable club than the Mountaineers, or one of similar aims and equally high character. The home region of the Mountaineers is unexcelled by any other in the world. Your are to be congratulated on situation and thanked for great work already done for scenery.

Unfortunately scenery still is regarded as an outcast and much work is yet to be done in saving scenery from destruction and guarding it until it is appreciated. The outdoors of yesturday is gone forever and the wilderness is vanishing. During the next few years it will be the lot of mountain clubs to select and save for all the people the few remaining scenic places and also to see that all National Parks and scenic reservations of the Nation are given adequate protection and development. Do we not need a National Park Department or a Scenic Bureau? Scenery is one of the great assets of this country and its value is steadily increasing. Then too, Scenery has a large and important place in the making of good citizens.

Enos A. Mills

L. E. L.

The Mountaineer

Volume Five Seattle, Washington Nineteen Twelve

THE HIGHER FUNCTIONS OF A MOUNTAIN CLUB*

William Frederic Badé

Mountaineering as a form of sport is a relatively recent arrival among the recreational interests of mankind. In vain one searches the literature of antiquity for evidence that the ancients were interested in the conquest of mountain heights for the satisfaction of athletic and aesthetic impulses. When mountain ranges have been successfully traversed in the pursuit of other ends, an ancient chronicler sometimes allows himself a momentary exultation, but more because of what has been escaped, than because of what has been braved.

The earliest record of this kind known to me, made 1259 B. C., more than a thousand years before Hannibal crossed the Alps, is an inscription on the front of the temple of Rameses II at Abusimbel, Egypt. It commemorates the arrival at the Egyptian court of King Hattusar of the Hittites and his daughter. Together with their retinue they had made the long journey of a thousand miles from central Asia Minor to Egypt, crossing the Taurus mountains in winter time. Although they doubtless selected the easiest passes, it was a notable achievement, and was felt to be such by the Egyptian monarch, who three thousand years ago bade his scribe sculpture this simple tribute on the walls of the royal sanctuary: "What can these newcomers be like! To make such a journey when there goes not a messenger to Zahi in these days of flood on the upper heights in winter. . . . . The embassy came, their limbs being sound, and they were long in stride."

But instances of this kind, even, which exhibit mountaineering as a necessity rather than as a diversion, must have been rare in antiquity. While mountain fastnesses afforded shelter in times of war, their loftier summits were by the ancients believed to be the abodes of gods or spirits who were ready to

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resent an invasion of their domain. Such views survived to quite modern times as in the case of the Matterhorn, and are still held among the more primitive peoples of the earth. The above-mentioned Egyptian inscription contains a prayer to the god Sutekh that he may "dispose to fairness the flood and the cold upon the heights" for the benefit of the Hittite embassy.

The modern interest in mountaineering manifested itself first in connection with the awakening spirit of scientific inquiry. The foremost pioneer in this double enterprise was the French-Swiss physicist Horace Benedict de Saussure (1740-1799). In 1787 he climbed Mont Blanc under the guidance of Jacques Balmat, who had gained the summit for the first time a year earlier.

Slow but substantial progress was made during the next half-century in laying the foundations for the development of mountain climbing as an art and as a form of sport. But the systematic conquest of summits of first-rate difficulty did not begin until the second half of the nineteenth century. Coincident with this new phase of alpinism came the organization of various alpine clubs. First among them was the English Alpine Club founded in 1857. Its organization was followed by the Austrian Alpine Club in 1862, the Italian and Swiss Alpine Clubs in 1863, the German Alpine Club in 1869, and the French Alpine Club in 1874. North America joined the procession in 1876 with the organization of the Appalachian Mountain Club.

But the Pacific Slope, with its misty camps of mountains trailing in tumultuously diversified chains from the icefields of Alaska to the warmth of tropic seas, is destined to be the future arena of American mountaineering. The Sierra Club of California, the Mazamas of Oregon, and the Mountaineers of Washington already have well established organizations and an enthusistic membership. Upon these clubs has fallen the responsibility of directing alpestrian sentiment and energy on this coast. It is proper that they should ask themselves whether the history of alpine sport, brief as it is, may not suggest new lines of endeavor which have never been fully realized. The plasticity of our western life, unexploited fields of nature study, uniquely favorable climatic conditions, and the existence of national parks big enough for kingdoms in Europe, present advantages which no alpine club of the Old World has ever enjoyed.

The highest function of a mountain club must always consist in the encouragement it affords to the noblest and

cleanest of all sports. It accords well with this primary interest that it should work for the establishment and preservation of national parks where people may camp unhindered and live to the full that outdoor life which is so necessary to their highest physical and intellectual health. Where such parks have already been established the pecuniary rewards of power development will for a long time render them subject to invasion by power grabbers. Only large organizations, created for disinterested ends and vigilant on behalf of the public, can hope to interpose an effective check to corporate greed.

It is fitting that the stimulus which the awakened scientific imagination gave to the art of mountaineering in its infancy should in these days of its relative maturity lead to the cultivation of certain scientific interests that can be most fruitfully pursued amid the free life of the forests and the mountains. The publication of accurate information regarding the trails, passes, and topography of a mountain region is certainly one of the tasks to which a mountain club should address itself.

Next in order comes the study of the silva and flora of our mountains. The botanical survey of many of our western mountain regions is still very imperfect. Almost any mountaineer with a good eye and a fair knowledge of botany can make a valuable contribution. When all the species have been described and classified there remains the even more interesting task of studying the ecology of mountain plants, their adaptation to their environment and to each other.

Particularly interesting from the point of view of plant geography are the bryophytes and liverworts that inhabit the higher altitudes. Some of them at least may prove to be survivors from past ages of the world's geological history. Certain isolated peaks are found to be veritable islands of plants that live only at certain altitudes, and which, co-incident with the disappearance of arctic conditions after the ice age, were left stranded on the mountain tops like sailors after a shipwreck. Any expert bryologist would be delighted to receive and report on specimens of mosses secured during an ascent and carefully labeled as to date, altitude, and place, and the character of the substratum on which they were found growing. Reports or descriptions of this nature could be printed from time to time in the club publications, which would thereby, in time, become indispensable sources of reference for special investigators.

When the rarer and more exquisite flowering plants of a given region and their habitat have become known, a great service to practical aesthetics and to the enjoyment of future generations might be rendered, on the one hand by preventing their ruthless destruction and extinction by the thoughtless, and on the other by transplanting and spreading them into regions where they are not now found. It is to be hoped that the time is approaching when every mountain club will have a committee, or sub-organization, that shall give particular attention to the conservation of our wild flowers. The lasting good effect of activity along such lines would soon become apparent in our national parks.

What is true of the flora applies in equal measure to the fauna and avifauna. At a little dinner recently, the writer heard the distinguished diplomatist and statesman, James Bryce, express the opinion that children and young people should be taught to take an intelligent and sympathetic interest in the lives of our furred and feathered friends of the mountains and forests; that in this way the natural instincts of childhood can be turned to account for the conservation of our rapidly disappearing wild life.

Recent investigations have shown that certain birds and mammals of the Pacific Coast are disappearing so fast that unless something is done at once to check their destruction by hunters they will become extinct in a very short time. The mourning dove and the band-tailed pigeon, for instance, are so reduced in numbers now that they bid fair to follow the passenger pigeon to extinction. A number of California organizations, including the Sierra Club, have by representatives organized themselves into a Committee on the Conservation of Wild Life. Their endeavor will be to secure immediate legislative action in the most urgent cases. It may properly be regarded as one of the higher functions of a mountain club to give support to such movements, and to encourage and commend such rare philanthropic acts as the recent purchase of Marsh Island in the Gulf of Mexico, by Mrs. Russell Sage, to be dedicated as a guarded refuge for the migratory birds of America. This island had long been the most popular haunt of the southern market gunner, because shore birds flocked to it by the million —only to be slaughtered.

There remains to be mentioned the recreational use of

alpine regions in winter time. Recent years have witnessed a remarkable development of winter sports in different parts of the world, especially in Switzerland. The great possibilities of this relatively new form of recreation were forcibly brought to the writer's attention two years ago during a midwinter sojourn in the Alps. Thousands upon thousands of tourists were coming from every part of Europe to engage in the sports and to enjoy the scenery of the mountains in winter. The most frequented resorts were situated at altitudes ranging from five to seven thousand feet. During January skee-parties made ascents to altitudes of ten thousand feet and over.

Anyone who has observed this trend of outdoor recreation will agree that the winter use of national parks will in the near future come to reinforce the summer use, as surely as morning succeeds night. Snow-shoeing, skeeing, tobogganing, skating, and mountain climbing will claim their enthusiastic devotees. From the sea-level Californian among his ever-blooming roses to the hardy Canadian of the frosty north, the men and women of our Pacific Coast are beginning to hear the call of the snowy pine, of the frozen lake, and of those glistening summits which have a new charm under wintry skies. It will prove a noble function of our mountain clubs to stimulate and foster this love of the heights when the north wind roars.

LITTLE TAHOMA

O crag-crowned peak, I hail thee once again!
Once more thy lofty crest breeds fresh surprise.
At rest in hanging garden, flower-warmed glen,
O'er waves of ice I lift my wistful eyes
And hail thee; O, I hail thee once again!

O jagged spire, I hail thee once again!
'Twas here thy Mother Chaos gave thee birth
To guard thy sire from vulgar feet of men,
And yet, I brave long silent lanes of earth
To hail thee; O, I hail thee once again!

Edmond S. Meany

THE MOUNTAINEERS' OUTING ON THE NORTH SIDE OF MT. RAINIER*

MARY PASCHALL

Briefly, the plan for the 1912 outing of the Mountaineers was to skirt the highest mountain of the State along its eastern and northern slopes, to explore there its least-known parks and glaciers, and finally to scale the great peak itself. All this sounded most alluring to the fifty-five club members, under the leadership of William H. Gorham, who left Seattle on the morning of July 20 to spend three long weeks where the breezes blow fresh from the snows of Rainier (Tacoma).

With the usual joyous good-bys at the depot the trip began, our special car continuing to hum like a bee tree all the way to Lavender, where the dunnage was put off with us to await the coming of the pack train. Through a cloud of dust, at the turn of the road a half hour later, came the rhythmic beat of many hoofs mingled with the clamor of neck bells, chiming to our ears a very paean of delight. Presently they appeared shaking their manes, and a cheer went up to greet as valiant a band of little horses as ever bore pack saddles. In front rode Anderson, powerful even in repose, while "Brud," on his beautiful bay, dashed here and there meeting old friends. Four other packers, rounding up the stragglers, gave promise of what might be expected of them on the day to come, when twenty burden bearers would struggle up the fearful rock stairway of the Frying Pan, leaving our littlest wobbly colt beside the ford. But we were all unconscious of dangers ahead, it was enough for us to be going back to the hills.

Up the Granite Canyon trail, camp was pitched near a spring at the headwaters of Tanenum Creek, and every member of the party straightway began looking for a room in the only inn that is never full. Half the joy of the march is in the magnificence of these bedrooms roofed by the sky. At Summerland it was possible to reach out of one's sleeping bag and pluck

*Outing Committee: Wm. H. Gorham, A. H. Brackett, Fred Q. Gorton.

MOUNTAINEERS' CAMP IN SUMMERLAND
Chas. S. Gleason

Elevation 6800 feet. View looking west from "men's quarters," showing Little Tahoma and Mt. Rainier, on the sky line; the Frying Pan glacier flowing from Little Tahoma north and joining the White glacier, in the middle distance; the nose of the middle fork of the Frying Pan and the site of Mountaineers' Camp No. 7, July 27-30, 1912, in the foreground.

the flowers; on the heights of Spokwush meadows, one could almost reach the stars.

Following the backbone of the Manastash ridge next day, night brought us to Quartz Creek, where the first Sunday service was held. The second was in Summerland, the last in Grand Park, each temple of worship more beautiful than the last.

The main highways among the mountains, pursued alike by animals, railroads, and mountaineers, are the water courses. Most of the trails, indeed, have taken their names from their river companions. Winding down the southern slope of the ridge through the mottled trunks of the yellow pines, one instinctively looks for the Naches, and dropping into the valley, emerges suddenly from the timber into an open meadow knee-deep in flowers. Beyond runs the river, clear-eyed, singing its way toward the sea; from rift to cataract, from pool to dreaming pool, it flows among the rock-ribbed hills. Where is there a spot where larkspur nods a deeper blue or berries hang heavier? The ford that July morning witnessed the approach of both divisions of the army at once, the horses emerging suddenly from the copse, rushed eagerly to quench their thirst, then splashed on not to lose their places in the brave calvacade; while slowly winding along the rocky palisade above moved "the line," an iridescent ribbon of color.

One can not think of a summer's outing without recalling the camp-fires, yet how is it possible to picture the spirits that enter into the fire-lit circle? The lost art of story telling here returns and brings with it original verse and song to fill to overflowing this breezy chapter of life's out-door holiday. Sitting on the ground at the Forks of the Trail, the gathering place of forgotten tribes of Indians, we listened to their simple stories of earth and sky; heard again their footfalls by the river; and watched the fires that glowed and died before our own was kindled. Through the closing songs of those star-lit nights ran the old, old melody of comradeship, filling all the dark till the very trees clapped their hands and the surrounding hills took up the strain and broke forth into singing.

The Crowe Creek trail, leaving the Naches, rises steadily for nearly three thousand feet. Through the silvery trees of the ghost forest the majestic Fifes Peaks can be seen for many miles. Near Echo Lake we were joined by the Caesar party of

Tacoma, and continuing through Bear Gap found Mr. Brackett and Mr. Corey with thirty-five hundred pounds of provisions. Filing through the rocky portals of an unnamed pass, the party made a rapid descent toward the east fork of the White, rumbling mightily far below. There is an exhilaration of motion in these glacial rivers always fascinating and we were glad to be camped near by for a day, while our "trail gang" slashed a way by which the pack train might reach Summerland.

On the morning of the eighth day hope ran high. The whistle blew the signal to start and "the line" filed away on the Glacier Basin trail to the junction of the White and the Frying Pan rivers. Crossing the turbid stream, the ascent began up a rugged valley, closed on one side by a sheer wall of rock, on the other by close-set trees, while far above and beyond loomed our mountain, dazzling, wonderful. The Frying Pan River, scarcely started in its headlong race, chanted still the songs learned in subterranean galleries under the blue ice of the glacier. Up and higher up toiled the little company. It was hard to hold us back now with the breath of the hills in our nostrils and the hill flowers pressing against our feet. After a final scramble up the last hundred yards, the miniature park itself burst into view; its jutting headlands guarded by turrets of living green were spread for us with carpets of crimson and violet embroidered in gold. We were home at last in Summerland. Here Carr made plans to kill for us the fatted calf, and here also came the first try-out on snow, when the che-cha-kos, standing at the top of a dizzy white slope and told to coast down, balanced first on one foot and then on the other in an agony of indecision whether to try it standing or sitting. They made at last a bold effort, one and all, started scientifically as instructed, using the alpenstock as a rudder and a brake, but missing the trick somewhere, capsized desperately and reached the foot of the declivity rolling like animated boulders from an avalanche.

Among the most striking impressions of these altitudes are the sky-line pictures. Sometimes it is a silhouette pack train or a nodding company of plumed anemones, and occasionally a band of mountain goats drifting upward along the horizon of a ridge. On the tenth day out while we were halted for lunch on the margin of a snow field, there appeared across the deep valley a solitary messenger. It proved to be the man detailed

RURAL FREE DELIVERY IN THE MOUNTAINS
S. V. Bryant

On July 29, 1912, the Mountaineers were met on the snow fields near Urania glacier by Park-ranger Longmire with mail from Paradise Park.

by the park superintendent to meet the party and bring them word from the great outside world. With breathless interest his progress was watched as step by step he moved down the slope. "How beautiful on the mountains are the feet of him that bringeth good tidings." Could it have been the altitude that set our hearts to beating as the precious mail bag was unstrapped and one by one we heard our names as one hears in a dream? Standing upon the snow, each with his news from home, there was no spoken word, the silence wrapped us as a cloak, those enhungered were satisfied.

Breaking camp the following morning, the opportunity came for a brief study of the great White glacier, the longest in the United States. The sweep of its tremendous body and its grip on the mountain made one think of some prehistoric reptile. Of especial interest were the balanced rocks and the ice needles, scarcely less striking than the seracs on the Winthrop.

Arriving at Glacier Basin a most unique try-out was made to Camp Curtis under the leadership of Professor Flett. We had volunteered to carry fagots above timber line, in order to have a commissary fire when on the main climb; some of us were inwardly sorry of our bargains before we were through. In fact, those sticks had a fashion of increasing in weight every few hundred yards. But who can forget the glimpse of heaven

and earth from that eerie camping spot above the clouds or the delight of the descent into Glacier Basin across the face of Inter-Glacier?

Northeast of St. Elmo Pass and directly opposite the point where the glacier changes suddenly to a river and goes roaring and foaming down the mountain, stands a small pyramid of irregular rocks. It was at this spot that the seeds of the cherished edelweiss of the beautiful Bavarian Alps were planted with appropriate ceremony on August first by the women of the 1912 outing of the Mountaineers. In the Mountaineer Bulletin of April of this year will be found a copy of the letter from Mr. Anton Lang, the donor, together with a short sketch of the traditional significance of this courageous little flower of the Alps, that dares to bloom upon the mountain tops. In improvised costume, the spirit of Bavaria in the name of her country presented the seeds which were graciously accepted by the spirit of the mountains of America, after which they were gently laid away in the brown mould, awaiting the time when the sun in heaven should wake them into life. There is a charm, an atmosphere, that surrounds all planting, from the grain of wheat to the oak tree; here was the added dignity of a mountain clothed in perpetual snow, standing guard over a treasure almost intangible yet associated with all that makes life significant. The few spoken words and the simple verses on the edelweiss, expressed the hope of a people whose freedom rings indeed from every mountainside!

On August first, after hearing the reports of the Major Ingraham party and of the four scouts sent on the preliminary climb, to the effect that snow conditions were extremely bad on the north side of the mountain this year, the main party took the trail for Grand Park by way of Lodii basin. The ascent of the mountain was made by nine men.

Judged by almost any standard one can not be disappointed in Grand Park. A tableland six thousand feet high, it contains more than one thousand acres where the clean winds sweep across the levels and play forever in and out among the perfect groups of alpine firs. To look at sunset across this immense flowery plain at Mt. Rainier is to know it as a new peak and rejoice in the acquaintance. He is fortunate indeed who has thus seen it crowned in the gigantic cloud hood that promises storm. We fully realized the warning that was given us on

Plate V.

GRAND PARK
Kathleen Gorham

This beautiful natural park lies ten miles northeast of the summit of Mt. Rainier on a plateau, elevation 6000 feet, and contains about 3000 acres of mountain meadow with groups of alpine fir and mountain hemlock. View taken Aug. 4, 1912.

Plate VI.

VIEW FROM SUMMERLAND
Chas. S. Gleason

Taken from elevation 6800, showing on the left the nose of the south fork of Frying Pan glacier, to the right center, the middle fork, with Little Tahoma and Mt. Rainier on the right sky line. July 28, 1912.

leaving the park, when three days later the hood became an umbrella and we were just beneath the drip.

Down the Winthrop and up Van Horn Creek to Spokwush meadows, one is surrounded with vistas. Toward the west from the divide across the torrent-scarred ridges, appears the snowy line of the Olympics, a mile below stands the gray arch of the great stone bridge, while to the south of the valley rise the rich red turrets of the ruined castles of the Sluiskins. Before the blazing campfire, one of our geologists interpreted part of the story from the great stone book that for many days had been spread before our eyes on the rocks and glaciers of this typical volcanic peak, a story as old as the hills indeed, yet ever new and full of interest. Morning came in one saffron sheet, unrolled beyond seven ranges of foothills. Reluctantly we packed and started to breakfast. The women had been asked to bring down their dunnage and there immediately ensued a wild scramble as the bags were released on the heights above commissary. Rolling, bouncing, hurtling downward, they made straight for the fire or the stream. Shouts rent the air at every fresh catapault from above and cheer upon cheer for the hero who dared to stop the missile.

From Chenuis Mountain to Spray Park is not far horizontally, but we alas, measured the distance up and down, so there was but time for an afternoon's acquaintance, a last look at our mountain of mountains, a last rest on our beloved heather, a last race across the snow, and we were off down the trail toward the Carbon river.

The very heavens wept at our departure, and such a downpour! Yet despite the soaking, it was a right jolly company that gathered that night in Ranger O'Farrel's hospitable cabin to celebrate Christmas in August, with a real illuminated tree and a most real Santa Claus in a fur coat to distribute the gifts.

One more campfire, ending with a "hob-nail dance" in the deserted mining town of Hillsboro, a coveted opportunity to study the coal mine now being actively operated at Fairfax, and we boarded the special car. This time the hill mud clung visibly to our shabby and beloved boots and with it the joy of all that we found, in those wonderful playgrounds among the eternal peaks.

Plate VII.

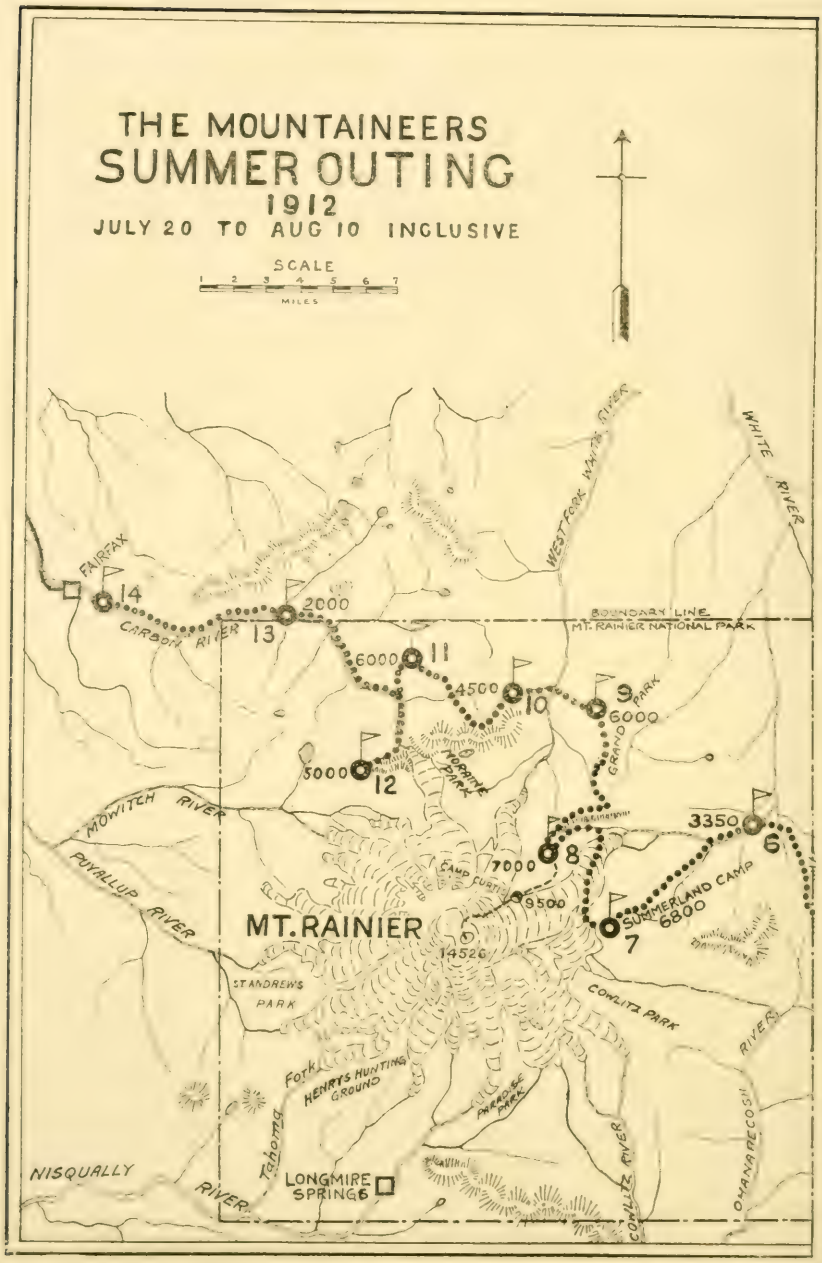
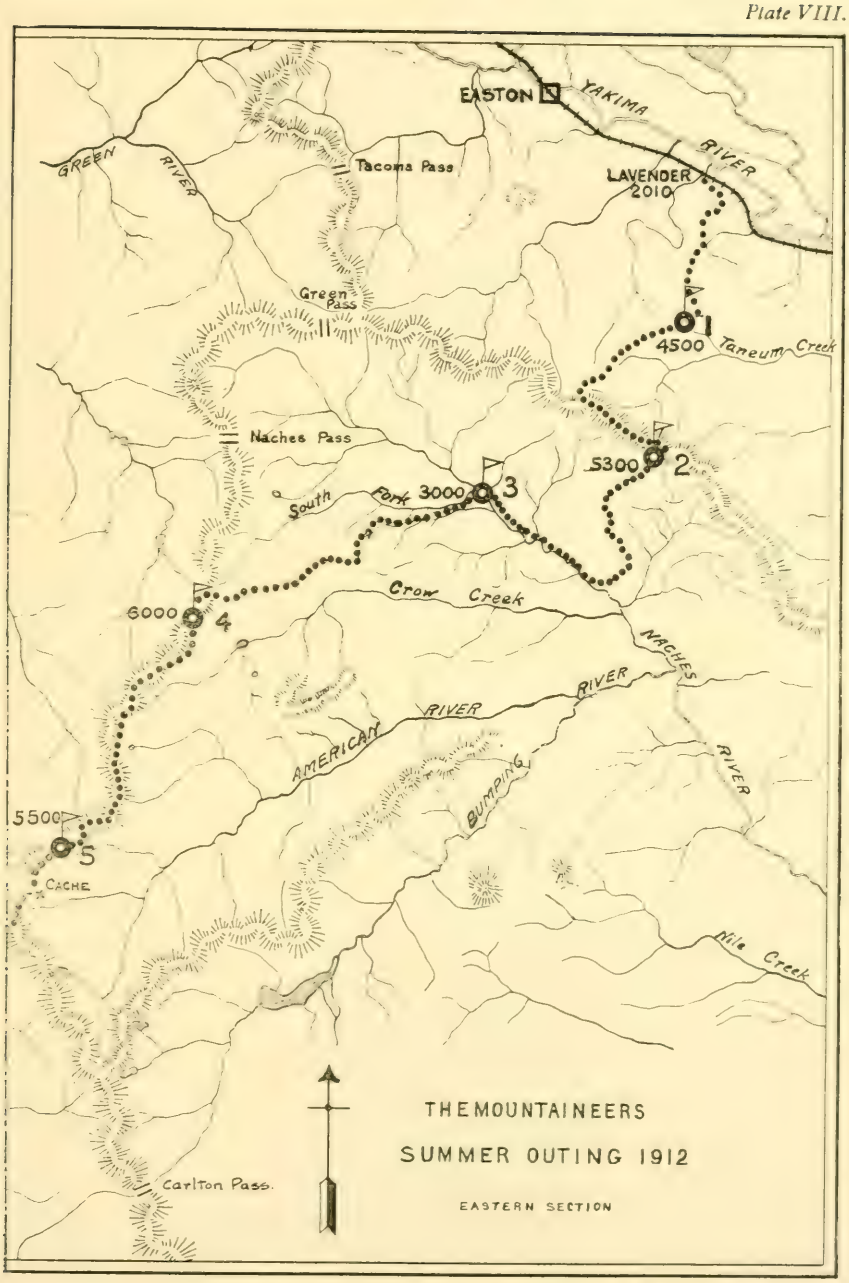

THE MOUNTAINEERS
SUMMER OUTING
1912
JULY 20 TO AUG 10 INCLUSIVE
SCALE
1 2 3 4 5 6 7
MILES
WEST FORK WHITE RIVER
WHITE RIVER
FAIRFAX
14
CARBON RIVER
13
2000
BOUNDARY LINE
MT. RAINIER NATIONAL PARK
6000
11
4500
10
9
PARK
6000
GRAND
5000
12
NORTH PARK
MOWITCH RIVER
PUYALLUP RIVER
3350
6
8
7000
CAMP FURTH
9500
SUMMERLAND CAMP
6800
7
MT. RAINIER
14526
ST ANDREW'S PARK
COWLITZ PARK
RIVER
Fork
HENRY'S HUNTING GROUND
PARADISE PARK
NISQUALLY
RIVER
LONGMIRE SPRINGS
COWLITZ RIVER
OHANAPECOSH

Plate VIII.



Drawn by R. H. McKee and Arthur Nation

ITINERARY OF 1912 OUTING

July 20. Seattle to Lavender, elevation 2100, via C. M. & P. S. Ry. S. 10 miles to Camp 1 on headwaters of Tanenum creek near summit of Manastash ridge, El. 4500.

July 21. S. W. 12 m. to Camp 2 on headwaters of Quartz creek, El. 5300.

July 22. S. to Naches river, W. up old McClellan trail to Camp 3 at "Forks of trail," El. 3000. Distance 11 m.

July 23. W. up Crow creek trail, 14 m. to Camp 4 on summit of Cascades 2½ m. S. of Arch rock, El. 6000.

July 24. S. 12 m. along summit trail, passing Bear Gap, to Camp 5 near head of Morse creek, El. 5500.

July 25. S. to cache at head of Rainier fork of American river, thence to summit on E. boundary of Rainier National Park. thence N. W. down fork of White river to Camp 6, El. 3350. Distance 13 m.

July 26. At camp while "trail gang" of men of the party cut out trail to Summerland, and packers returned to cache for supplies.

July 27. S. W. 9 m. up White and Frying Pan rivers to Camp 7 in Summerland, El. 6800.

July 28. Try-out on Frying Pan glacier.

July 29. Try-out to Urania glacier.

July 30. Across Frying Pan and White glaciers and around Ruth Mt., 7 m. to Camp 8 in Glacier Basin, El. 7000.

July 31. Try-out up Ruth Mt. to Camp Curtis, El. 9500, and return across Inter-Glacier.

Aug. 1. Try-out through Elizabeth pass and across Winthrop glacier.

Aug. 2. In camp.

Aug. 3. Ascent of Mt. Rainier by nine members. Party crossed Sourdough range and through Lodii basin N. to Camp 9 in Grand park, El. 6000. Distance 9 m.

Aug. 4. Explored Grand park.

Aug. 5. W. 9 m. descending 3000 ft. into Winthrop canyon and up Van Horn creek to Camp 10 near Natural bridge, El. 4500.

Aug. 6. N. W. 6 m. via headwaters of Van Horn and Spokwush creeks to Camp 11 in Chenuis basin, El. 6000.

Aug. 7. S. W. 9 m. descending 3000 ft. into Carbon canyon and thence up Carbon and Cataract creek trails to Camp 12, El. 5000, with side trip to Spray park.

Aug. 8. W. 9 m. down Carbon trail to Camp 13 at park ranger's station on N. boundary of National Park, El. 2000.

Aug. 9. W. 8 m. down Carbon trail to Camp 14 at Hillsboro.

Aug. 10. Two m. to Fairfax on N. P. Ry. and to Seattle by train.

Distance walked exclusive of try-outs and side trips, 139 m. Total ascents and descents, 50,000 ft.

CHARLES S. GLEASON

M. F.

THE ASCENT OF MT. RAINIER

E. M. Hack, D. D. S.

Oh fateful, oh unhappy, tearful Friday!

From Glacier Basin, Rainier National Park, on August second, nineteen hundred twelve, at three o'clock in the afternoon of that most direful of all days in the week, was begun the climb of Mt. Rainier.

Glacier Basin has an elevation of approximately six thousand feet and the climb of thirty-seven hundred to Camp Curtis was made by six o'clock. The wood brigade, preparatory to the big climb we all expected to make, had ascended two days before, consequently a goodly supply of fuel awaited our band of nine and right welcome it proved, for a biting wind swept the camp. As protection in such emergencies small stone pens have been erected. The one which comes distinctly to the writer's memory was intended for two persons. Four slept therein, with the agreement that the first position would likewise be the last, and there was forced home to him who rests upon his back the conviction that a brilliant moon very effectually dispels the sleepy phalanx of darkness.

We arose next morning at half after three, in season to behold a most wonderful sunrise. Far below a thick canopy of clouds shut out the nether world, and in the dim and mystic light of early morning, vast mountain ranges were seen suddenly transformed into wondrous cataracts, whose phantom waters rushed downward to break on airy rocks and be transmuted to lovely fairy forms clothed in the rose and gold of the rising sun.

From Curtis the route lay entirely over snow and ice, somewhat softened by the sun at lower elevations, affording an easy footing, but hard and treacherous on the steep slopes at higher altitudes. Considerable dust was noticed on its surface until a point fifteen hundred feet below the summit was reached, when the snow gradually assumed a dazzling whiteness varying in deep crevasses through shades of green to a deep emerald, according to light absorption. Some very good pictures were

THE ROUTE TO THE SUMMIT — P. M. McGregor

View from Camp Curtis, elevation 9500 feet, showing the route up the White glacier to the saddle between Crater peak and Russell peak, 500 feet below the summit, taken by the Mountaineers, August 3, 1912.

H. V. Abel

A CREVASSE ON THE WINTHROP GLACIER

View taken Aug. 1, 1912, on a try-out trip of the Mountaineers through St. Elmo pass and across the Winthrop glacier.

taken during the ascent, but they do scant justice to the wonderful snow and ice formations, dreadful in their fantastic beauty.

The members of our party agreed that each man should in turn break or chop steps as necessary, which plan was adhered to throughout the climb, the present worker falling in at the rear when his "trick" was ended, the second in line succeeding him. No special precautions were taken, each person seeming capable of caring for himself. The mascot of the journey was an emergency bandage, which was not used. One regulation army canteen of oatmeal water supplied two men. This mixture proved much superior to either tea or undiluted water.

Our route to a point within one thousand feet of the crater was identical with that of the scouts who had been sent from the main body two days previously, with the object of ascertaining the most feasible way to conduct a large number to the top. On these dangerous climbs nothing is left to chance. At an elevation of more than thirteen thousand feet they had encountered a seemingly impassable barrier, a deep crevasse. Professor Flett, whose wide experience on the mountain eminently fitted him to be our pilot, now took the lead and nonchalantly "hit" the ugliest looking trail the writer has ever gazed upon.

The little band scattering out at intervals in uncertain and wobbly effort to follow leader, the writer was left alone for a few minutes beneath a peculiarly formed impending mass of snow and ice, which imagination easily likened to the jaws of some vast pre-historic monster suddenly frozen by tremendous climatic changes, even in the act of devouring its prey. Standing there sheltered from the wind, no living being in view, the earth obscured by floating mists, there was gained for the first time an appreciation of that "eternal silence of the hills." In an effort to understand the ambition which drives us into the very jaws of death after such fruitless victories, thought turned upon the glory of man's achievement in the past, the majesty of his probable destiny. For out of that eternal silence has he come, climbing slowly, painfully, through the countless eons which have vanished in a trackless past. Experience born of the bitterness of misfortune and defeat, his only guide, has taught him how to conquer every obstacle which ignorance and superstititon have thrown across his path, yes, even Death

itself. So the answer came from that restless spirit of conquest, which urges us ever onward to the accomplishment of our destiny, to the ever narrowing confines of the land of the unknown.

A shout of triumph echoes through the mountain fastness, a passage has been discovered. True the way is dangerous, but it leads to success and what else matters? One portion conformed much too closely in general contour to the inverted letter V and for a while we experienced a most unseemly envy of the fly and his various appliances designed for sticking fast. Moreover, to give additional comfort, nature had flanked us with two beautiful and very commodious crevasses, the whole furnishing a short and slippery path to that country of golden harps and milk and honey; the praises of which are so often sung by those who have never crossed its confines, and into the realms of which we are so eager that the other fellow should enter. A snow bridge crossed, we approached the upper levels of that graceful, dazzling sweep known as the saddle, guarded by Columbia Crest and Russell Peak. Here the slopes were less precipitous and the snow softer, due probably to recent falls. The hour hand (also the inner man) now indicated one o'clock and we began anxiously to peer about for the celebrated steam caves promised us by Professor Flett. I fail to recall the prevailing idea entertained of those apartments, but our doughty leader had hinted of hissing steam and sulphurous gases, so we expected a large and commanding archway bearing the celebrated legend; mayhap a little devil to receive wraps and a hot lunch seasoned à la Mexicano.

Sad disillusionment! We scrambled, or fell, through a jagged opening in the ice crust into a spooky cavern most comfortably warm and so moist with the condensing steam that our clothes were soon bedewed with glistening drops. Sure enough the steam was escaping in jets through various openings among the rocks and we had the unique and most enjoyable experience of scraping the snow with tin cups from the roof of our house, placing in the icy mixture a cube of condensed bouillon, putting the utensil on the floor over a jet of escaping steam, and in five minutes detecting with eager nostril the delicious aroma of boiling beef tea. And this at an elevation of fourteen thousand feet, under the eternal snows of Mt. Rainier. While perched upon a warm rock munching a most

CROSSING INTERGLACIER
H. V. Abel

Showing the Mountaineers returning from Camp Curtis, elevation 10,000 feet, to camp in Glacier basin, July 31, 1912. Interglacier is a hanging glacier between the Winthrop and the White, but not connected with either, nor with the great ice cap on the summit.

delicious lunch, we idly wondered how long it would take to complete the process of parboiling, should a miniature avalanche suddenly deposit us in some remote corner of the cavern.

The presence of steam caves is easily explained. The snow falling on warm surfaces at higher altitudes is reduced to water, runs through the still hot rocks of the extinct volcano, and escapes as steam at various points below the snow crust, which is melted in the immediate vicinity of the jets, forming a cave.

Luncheon over, we scrambled again to the upper world and continued our arduous journey, soon encountering a wide margin of small loose rocks extending downward from the rim of the crater, possibly two hundred feet, and swept entirely clear of snow. This, as viewed from Camp Curtis, appears a faint, dark band around the summit. The party reached the crater at three-fifteen o'clock and there across the comparatively level area of the smaller crater was our goal, the semi-spherical, snow-clad Columbia Crest. A few minutes and we stood upon the pinnacle of Rainier's icy mantle. A thick haze obscured the horizon. The utmost heights of Hood, St. Helens, and Adams pierced the cloud canopy and appeared as floating islands in a sea mist.

Two important ceremonies were now observed. The leaders were corralled and a wobbly war dance done around them, then we stood, a row of icicles, while the camera fiends accomplished their fell purpose.

It is interesting to note that several had a heart-beat of approximately one hundred per minute, though he who claimed to be the oldest in the party reported one hundred and thirty. He had been quite sick as we approached twelve thousand feet but recovered after the summit was reached. Respiration with most was somewhat labored while exercising.

The descent was commenced at three-fifty o'clock. The rim of the crater again reached, we cached a paper bearing our signatures and sang a song to the good old tune of "Never again." The ground just here was too warm in places to afford a comfortable seat. Possibly old Rainier may some day pay us its respects in the form of a lava flow and evil smelling gases, who knows?

The higher altitudes above us, the descent became quite rapid, Curtis being reached shortly after six. A half-hour rest encouraged three of the party to continue the descent to Glacier

Basin which was entered at eight, and there we found ample toothsome evidence that Carr had been snoopin' 'round. Next morning the complete party joined the main body in their camp at Grand Park.

The writer is not justified in advancing an opinion concerning the relative merits, hardships, or dangers of this climb. However, Professor Flett remarked in his hearing that a party of twenty men would have found it necessary to spend the night in the crater, and when Camp Curtis was reached on the return journey most of the party were exhausted. The trip proved a pleasure none of us would forego, possibly few repeat.

"Among those present" were Messrs. J. B. Flett, J. H. Weir, and Duncan Pearce of Tacoma; F. Q. Gorton, P. M. McGregor, S. V. Bryant, H. V. Abel, C. A. Hultin, and E. M. Hack of Seattle.

GRAND PARK

I wish that all the pilgrims
Who seek the mountain steeps
Might rest in these broad meadows
Where wondrous quiet sleeps.

Each pilgrim here may worship
In templed emerald spires;
Aloft on massive altar
Still smolder ancient fires.

The timid forest deer-folk
These lily censers sway,—
Shy priests of emerald temples;
O pilgrim, pause and pray!

Edmond S. Meany

A NEW ROUTE UP MT. RAINIER

DORA KEEN*

Probably no other high mountain in the world can offer an approach as beautiful, as wild, and as easy as that from Fairfax, Washington, to the foot of Mt. Rainier. An hour after leaving the railway, the giant cedars and Douglas firs of Rainier National Forest close in on a trail so unfrequented as to seem all but untrodden, yet of easy grade and "good" for the region traversed. By night Crater Lake may be reached and early the next day Spray Park, at the foot of the mountain. Here one may camp with wood and water, and grass for the pack horses, in the loveliest of natural parks.

Could the mountain be climbed by this northwest side, and if so could we get to the summit and back in a day? These were the problems confronting our little party of three, all experienced mountaineers and keen for the fray. Our elevation was only 6,100 feet. We had reached the last wood and water and the pack horses could not well go higher—although in Alaska they would have gone much higher. We could camp no higher, therefore, unless we were to waste the precious days of clear weather in relaying up wood, bedding, etc., on our backs, or go without them. It was mid-September. Daylight lasted only fourteen hours and the nights were chill, but on the other hand the summer's avalanches had nearly ceased and new snow had made travel fairly easy on the glaciers above. This side of the mountain was considered impossible because of the almost continuous avalanches from its steep ice walls during the summer, bnt now there was frost at night and the day's heat was brief.

To reconnoitre, to study the mountain with glasses was the first step. At 7,500 feet our view was complete and was near enough for a satisfactory survey, so down we sat to plan our route in detail, and to watch for avalanches. We were looking across the North Mowitz glacier from half way up Desolation ridge, and when each of us had picked out his route, we found that we all agreed, not only in our judgment that the mountain

*Miss Keen is a world-famous alpinist whose latest feat was the first ascent of Mt. Blackburn, Alaska.

EAST SIDE OF DESOLATION RIDGE, HIGHEST POINT 9500 FEET — Dora Keen

*Dotted line on photograph indicates the route chosen.

could be safely climbed from that side, but also in every detail of the route chosen.. But alas! the fates were against us, for at 9,500 feet the next morning, just where the serious work was to begin, the illness of one of our number compelled us to turn back, and when two days later we finally started again without him, again at the same point a terrific wind made it unsafe to proceed, and the fatal cloud cap determined our retreat. We had neither time nor food for waiting, but so sure were we of our route that I am glad to submit a few notes and views for the benefit of other adventurous mountaineers:

From the last wood and water, below Desolation ridge, something more than an hour's climb, even by lantern, will bring one to the east, snow-covered side of this ridge, which should be followed to its highest point (another hour and a half) almost under the end of Willis Wall. Thence the head of the North Mowitz glacier gives a short and apparently safe crossing to a ridge of rocks that lead up some 2,000 ft. In case these rocks can be climbed with an extra rope, by their outward side, the ascent to the summit would at no point be imperilled by ice breaking off from above, and all difficulties would be solved, for the rocks lead upward to easy snow slopes, on which the summit could probably be reached in another hour and a half. For the ascent of the rocks, prudence would dictate that four hours be allowed, but so far as could be

judged from various points by varying lights, the only point of serious difficulty lies not on the rocks but immediately below them. Here a steep ice slope, rotten ice, and deep crevasses below might require some 200 feet of step-cutting. Care must also be exercised in getting on to the rocks lest procedure too far to the west take the party under dangerous ice cliffs. Weather conditions and season are also important in order to avoid either too much snow on the rocks, or avalanches while crossing the head of Mowitz glacier. The route determined, there remains the problem of an eighteen-hour ascent with only fourteen daylight hours—for September seems the best month for this route. If the start is at 2 a. m., with wind-proof Alpine lanterns, this interesting first ascent by the northwest side might safely be accomplished in a day.

L. E. L.

NACHES PASS

Edmond S. Meany

During the years 1910, 1911, and 1912, the Mountaineers have seen seven passes through the Cascade Range. Three of these are used by railroads, the others by Indians, miners, and cattle drivers. The one that is probably most historic of all the passes, we approached but did not actually visit during the outing of 1912. This is Naches Pass, the trail which we left at the river ford and proceeded to Crow Creek Pass, about six miles south of the more famous route.

Many of the passes were used by Indians for years beyond computation. As near as I can make out, the first white man to cross the range was Lieutenant Robert E. Johnson who left Nisqually on May 19th and returned to that fort on July 15, 1841. He had traveled one thousand miles, visited the missionary and fur-trading posts, examined the country, and crossed the mountains twice by the same pass. I believe that pass was the Naches. The element of doubt lies in the fact that the report of the Wilkes Expedition, in which Johnson was an officer, refers to the river he followed on the west side as "Smalocho" and the one on the east side as "Spipen." I can not wholly reconcile these with present-day names of rivers.

A sort of triple-headed climax was attained in the history of Naches Pass in the year 1853. In August of that eventful year Theodore Winthrop used that rough trail of Indians in crossing from Nisqually to the Yakima Valley. In his delightful book, "Canoe and saddle," he tells his experiences in a chapter headed "Via mala." His spelling is "Nachchese," but his descriptions are gripping to one who has been over any part of his trail. He met Captain George B. McClellan who had been trying the same pass to find a possible route for a railroad. That engineer pronounced the pass impossible and declared that he would search the Snoqualmie and other passes. His search was a failure.

Earlier in that year Nelson Sargeant had gone over Naches Pass and on out upon the plains to meet his folks who were

coming to Puget Sound by the overland route. He met the train of wagons over which James Biles served as captain. Nelson Sargeant guided them to the Naches Valley and up the mountain slopes. McClellan had called it an impossible pass, Winthrop called it "Via mala," and yet these pioneers hacked a wagon road over the pass in three weeks of the month of October. Over some steep places they used ropes on their wagons and parts of the wagons were left by the way, but the whole party crossed in safety.

In eight days, from June 12 to 20, 1856, Lieutenant-colonel B. F. Shaw marched a little army of 175 mounted soldiers, 107 pack animals, and 27 packers over the Naches Pass to the Wenas branch of the Yakima River. These were Territorial Volunteers serving under Governor Isaac I. Stevens. Officers of the regular army had declared the pass impossible a few days before that successful march by the volunteer troops in that Indian war.

At the outbreak of that war, late in 1855, Lieutenant W. A. Slaughter had crossed the mountains through Naches Pass, but hearing nothing of Major G. O. Haller whose troops had been turned back by overwhelming numbers of Indians near the present Fort Simcoe, he (Slaughter) turned back to the west side of the mountains. Meeting Captain Maurice Maloney with a company of regulars and a company of volunteers under Captain Gilmore Hays, the combined force again crossed the mountains. This time the season had so far advanced that the route was again retraced. Philip H. Sheridan in his memoirs tells of marching from the east side to meet Maloney's force and finding the snows had sent them back.

Settlers near the trail to Naches Pass call it "McClellan's road" and they claim there is a brass cannon near the Pass which was left by that officer in 1853. This is an error; McClellan did not reach the actual pass and the reconnoiter he did make was with two companions and no artillery or baggage. If the traditional cannon is at the Pass it was probably left there by one of the little armies that marched that way during the Indian war of 1855-1856.

THE UNDESCRIBED GLACIERS OF MOUNT RAINIER (*1)

F. E. Matthes

In the Rainier number of this magazine, which appeared in 1909, Alida J. Bigelow gave an able synopsis of the late Prof. Israel C. Russell's report to the U. S. Geological Survey on the glaciers of Mount Rainier (*2). As she pointed out, that report does not cover the entire series of glaciers of the great volcano, the Kautz, Wilson, Tahoma, Puyallup, and Edmunds Glaciers not being described in it. The fact is that Prof. Russell in the short time at his command, was unable to completely encircle the mountain. Its west and southwest flanks as a consequence remained unknown to him.

The topographic surveys which the U. S. Geological Survey has lately been carrying on in the Mount Rainier National Park fortunately embrace the very portion of the mountain which Russell did not see, and thus there is now at hand a considerable body of data on the glaciers that have hitherto remained undescribed.

The brief descriptions that here follow hardly dare aspire to complement Russell's classic studies; they are offered merely in a preliminary way, in the hope that some day they may be superseded by more thoroughgoing and detailed discussions. In the meanwhile, however, they may prove of interest not simply because they fill a gap long vacant, but because they also seem to indicate the need of a revision of our general conception of the glacier system of Mount Rainier.

That system, which was first outlined by Russell, comprises glaciers of two classes: primary and secondary; the primary glaciers being those having their sources on the summit of the mountain, the secondary glaciers (also termed interglaciers) being those originating well down on its flanks, as a rule in the hollows of the triangular tracts that separate the

(*1) Published with permission of the Director of the U. S. Geological Survey.

(*2) The Glaciers of Mount Rainier, 18th Ann. Rept., U. S. Geological Survey, Part II, pp. 349-415.

VIEW TAKEN FROM SOURDOUGH MOUNTAIN
Chas S. Gleason

Taken from elevation 7500, looking south by east and showing: From left to right, on the sky-line, Frying Pan glacier, Little Tahoma, north side of Gibraltar rock, Crater peak, Russell peak, and Liberty cap; in the middle distance, White glacier, Ruth mountain, Camp Curtis, Steamboat prow, Interglacier, Elizabeth pass, Winthrop glacier, and east side of Willis Wall. In the middle foreground is Glacier basin, the site of Mountaineer's Camp No. 8, July 30 to August 3, 1912.

diverging primary glaciers. While this classification admirably fits the conditions on the east half of Mount Rainier, it is scarcely applicable to the west half. Indeed all the large glaciers on the west half, with the exception of one, originate in amphitheatres or "cirques" situated some 4,000 feet below the summit. In point of magnitude, however, they are quite on a par with the summit born glaciers, and to call them "secondary" or "interglaciers" would seem scarcely appropriate. A careful analysis, moreover, shows that the great Carbon Glacier itself—the second largest ice stream on Mount Rainier—is really a cirque-born glacier of the same type as the other cirque glaciers on the west flank. Surely no one would think of placing the Carbon Glacier in the secondary or interglacier class.

In the following, therefore, the distinction between primary and secondary glaciers, as drawn by Russell will be dropped. At the same time, the term "interglacier" will be retained as most apt for the designation of those intermediate ice bodies of small extent that are situated on the "wedges" between the larger glaciers.

Van Trump Glacier. Beginning immediately west of the Nisqually Glacier, the last ice stream on the southeast side of the mountain described by Russell, we find a huge "wedge" that tapers upward in a sharp point. That point, which has an altitude of 13,000 feet, is a remnant of the great crater rim produced by the explosion that removed the original top of the volcano. Immediately below the point is a small hollow in which névé has accumulated for ages. The effect has been to enlarge the hollow until the ridges separating it from the great glaciers to the right and left are now reduced to slender "arrêtes" or "cleavers" as they are locally quite aptly called.

The process illustrated by this tiny interglacier has been repeated in a number of places on the great wedge. Every hollow in its irregular surface has been occupied by a small névé mass, and through the peripheral sapping action that invariably takes place around such ice bodies, these hollows have been enlarged, until now they are separated from each other only by narrow rock walls or cleavers. Thus the wedge has the appearance of carrying a number of ice-filled compartments with intermediate rock partitions. In some instances, even, these partitions have been partly destroyed

and the compartments communicate, so that their ice masses coalesce. The most conspicuous case is found in the central area where a number of basins, large and small, have united, so that their snows now flow together. This compound névé field is known as the Van Trump Glacier.

In former times, especially at the height of the glacial epochs, the Van Trump Glacier must have been much thicker and far more extensive than now, and many of the small ice tongues which, owing to the rapid shrinkage of the last decades are now threatening to become detached, were then part and parcel of the whole. At its lower border the Van Trump Glacier sent forth six lobes, each lying in a deep and narrow groove. These were confluent and ultimately formed two good-sized glaciers and a minor one that traversed the valleys of that charming park country for which the name Van Trump Park has recently been suggested.

Kautz Glacier. Immediately west of the great wedge that bears the Van Trump Glacier lies the ice stream named for Gen. A. V. Kautz, the first explorer to attempt the scaling of the peak. It has its sources in the summit névés south of the new crater. It is a singularly narrow glacier, averaging only one-half to one-fourth the width of the Nisqually, or about 1,000 feet. At the same time it is fully as long as the Nisqually, that is, exactly four miles, according to the new topographic surveys. It receives but one tributary of any size, a glacier still nameless that originates in a profound cirque under Peak Success. At first sight the volume of that glacier appears to be equal to that of the main stream, but the medial moraine which begins at their confluence, by its gradual shifting farther and farther west from the central axis of the glacier, shows that the tributary ice stream is the lesser of the two.

The medial moraine, which is almost two miles long, is very similar to that of the Nisqually Glacier, and like that moraine gradually gains in width and height toward the lower end of the ice stream so that at last it stands out above the ice like a strong embankment. The lower third of the glacier lies encased in a narrow canyon, the depth of which steadily increases downward, until at the glacier end it amounts to nearly a thousand feet. Below the glacier end the canyon suffers a remarkable constriction. For a distance of a quarter of a mile it has a width of only 400 feet. The walls are nearly

vertical, composed of columnar basalt, and it would seem as if the glacier during the times of its greater extension has had to squeeze through this narrow strait, unable to effect any considerable lateral erosion in this resistant material. Closer study, however, reveals the fact that the buttress on the west side of the gorge has formerly been overridden by the ice. The glacier, therefore, when at its greatest height, did not content itself with the avenue afforded by the narrow passage, but overrode the obstruction of hard lava to the west, thus securing an outlet one-quarter to one-half a mile in width.

Immediately below the constriction, curiously, begins the broad, flat floored valley of the Kautz Fork, a valley that seems disproportionately wide for the narrow gorge that empties into it. It is to be remembered, however, that it received ice from other quarters, notably from the region above Pyramid Peak. There is even reason for believing that the Wilson Glacier, when at its greatest height, overflowed eastward through the low pass back of Pyramid Peak and sent part of its volume into the Kautz valley. That that valley was once completely filled with ice is amply attested by the powerful moraines that run the entire length of the great ridge above the so-called "Ramparts."

The view into the gorge of the Kautz Glacier from the heights to the east is a singularly fascinating one that would well repay the building of a tourist trail up the ridge. The entire extent of Van Trump Park with its alpine ridges, gorges, lakes and waterfalls would thus also be opened up.

Pyramid Glacier. From the summit of Pyramid Peak one overlooks a great triangular interglacier situated on a sloping platform between the deeply sunk Kautz Glacier on the east and the Wilson Glacier on the west. It bears no name, but certainly deserves one. Merely in order to give it a handle for ready reference, but without insistence upon the acceptance of his suggestion, the writer will speak of it here as the Pyramid Glacier. In the meanwhile he hopes the Mountaineers of Seattle may settle upon an appropriate appellation.

The Pyramid Glacier heads against the great cleaver that descends from Peak Success. To the east it is separated from the Kautz by a straight, mile-long ridge covered with moraine. It has a length of a mile and a quarter and its greatest width is nearly a mile. Formerly part of its névé shed into the gorge

of the Kautz Glacier, but today its contributions to that ice stream are practically nil. Most of its volume used to cascade into the cirque-like valley back of Pyramid Peak. That region now is clothed in green and is one of the most picturesque timber line gardens the writer has had the pleasure to visit. It is easily accessible even now, although there is no beaten trail. It seems difficult to realize that the total number of tourists who have visited this park thus far probably does not exceed a dozen. Among its chief attractions is a perpendicular waterfall from the edge of a cliff of columnar basalt two hundred feet in height. Until last year that fall was scarcely known to anyone, and remained nameless. The name Pearl Fall was then suggested by one of the park rangers.

Wilson Glacier. (*1) The next glacier to the west is the one marked on the old government maps as Wilson Glacier, named for the topographer A. D. Wilson who accompanied S. F. Emmons on his dash to the summit (*2) a few weeks after Van Trump and Hazard had made their first ascent.

This glacier originates in a profoundly sculptured cirque under Peak Success at an elevation of 10,900 feet. It is an even four miles long and throughout its upper course averages half a mile in width. It forms the eastern member of the remarkable group of associated ice streams of which the Tahoma Glacier is the western member. The two great glaciers flow parallel to each other, separated in their middle course for over a mile by a mere row of isolated rock pinnacles, the remnants of an attenuated cleaver which is now partly submerged and over which the névés coalesce. Farther down the two glaciers abruptly part company, and cascade around a formidable pinnacled and deeply scarred fortress of barren rock, to meet again at its base, two thousand feet lower down. From Indian Henry's Hunting Ground one looks out upon this singularly magnificent glacial scene. Strange it seemed to the writer that the imposing rock mass hemmed in by the ice should not long since have been given a name. Glacier Island is the appellation he has suggested for it.

Glacier Island has an extent of nearly a square mile. So excessively steep are its ice-carved sides, however, that it is

(*1) The old names as adopted by the U. S. Geographic Board will be used by the writer pending possible reforms in nomenclature.

(*2) S. F. Emmons, The Volcanoes of the Pacific Coast of the United States, Journ. Am. Geograph Soc., Vol. IX, 1877, pp. 45-65.

MOUNTAINEERS CROSSING THE WHITE GLACIER
S. V. Bryant

Showing the great lateral moraln on the west side of the glacier. July 30, 1912. This glacier is the largest, finest and longest in the United States. It extends from the summit of Mt. Rainier down the entire eastern slope to the base, averaging two miles wide and about eight miles long.

not readily accessible except to experienced climbers. The island consists really of two rock masses divided by a deep abyss. A lobe from the Wilson Glacier formerly plunged into this gulf, and connected with the Tahoma Glacier, thus splitting the island into two lesser islands. A small remnant of this lobe still exists, but it no longer reaches to the bottom of the gulch.

The south half of the island, upon examination proves to have been entirely overridden by the Wilson Glacier; the higher north half, on the other hand, judging from the greatly weathered appearance of the frail pinnacles that surround it, has never been submerged.

The Wilson Glacier in passing around the island narrows down to a width of only six hundred feet, that is, a width one-fourth of the average width which it maintains above the island. At the same time its slope is greatly accelerated. In half a mile it descends 1,400 feet. Yet the glacier does not appear to break and cascade as it does in so many places farther up.

At the foot of Glacier Island the Wilson Glacier broadens again and unites with the great east lobe of the Tahoma Glacier, the two continuing thence for a distance of three-quarters of a mile as a single mass. This mass one might at first glance not take for a glacier; so entirely concealed is it under a mantle of morainic material. But a live glacier it truly is, as one may readily discover by venturing out upon its treacherous, hummocky surface. The coarse sand and cobbles are then seen to constitute but a thin veneer, through which the clear, blue ice shines in many places. So large are the quantities of powdered rock that bestrew this extensive tract, that the wind occasionally picks them up and creates veritable dust storms with them. The writer while crossing the glacier on one occasion met with such a dust storm, and a most disagreeable experience it proved to be.

Tahoma Glacier. This ice stream is by far the largest on the southwest side of Mount Rainier. Originating on the very summit of the mountain, it descends through the great, mile-wide breach that separates Peak Success from the Liberty Cap massif. For the most part it cascades down in the form of an unbroken stream, but a portion of its mass falls in avalanches down the great precipice that extends northward and forms

part of the wall of the enormous amphitheater under Liberty Cap. This amphitheater, which is second only to that of the Carbon Glacier, contributes a very considerable share of the total bulk of the Tahoma Glacier, perhaps as much as 30 per cent. Strangely, the union of its ice mass with that coming down over the cascades does not give rise to a medial moraine. It will require further investigation to determine the reason for this striking anomaly.

Farther down the Tahoma Glacier broadens to a width of slightly more than a mile, presenting an unruly, billowy surface, diversified by numerous crevassed domes and abrupt ice cascades. Approaching Glacier Island, the great stream contracts until at the west end of the island it measures only 1,700 feet across. Immediately below this point the glacier splits upon a low wedge, sending one lobe to the south and another to the southwest. The south lobe joins the Wilson Glacier under Glacier Island and thus becomes tributary to the Tahoma Fork. The southwest lobe continues by itself for a distance of a mile, giving birth to the southernmost fork of the Puyallup River. The south lobe, it may be added, is accompanied on both sides by splendidly developed lateral moraines; the moraine at the foot of Glacier Island especially is perfect and worthy of a visit.

Measured from Columbia Crest down to the end of the southwest lobe (which has an elevation of about 4,800 feet), the Tahoma Glacier is found to be exactly five miles long. Measured to the foot of the Tahoma Fork lobe it is five and three-fourths miles long.

Puyallup Glacier. The same amphitheater that contributes so generously to the Tahoma Glacier also initiates the Puyallup Glacier, the next ice stream to the north. In the center of the amphitheater rises a bold pinnacle of black rock which parts the névés and from which trails the long and exceedingly narrow rock cleaver that separates the Puyallup from the Tahoma Glacier.

On issuing from the cirque the Puyallup Glacier passes through a chute only 1,200 feet in width. A short distance below part of its mass is diverted northward to the Edmunds Glacier; yet notwithstanding this small beginning and immediate loss the Puyallup farther down spreads out to a width of three-quarters of a mile and then to a full mile, and attains

a length of slightly over four and one-half miles. Its front reaches down to a level of 4,600 feet, the same level reached by the much greater Tahoma Glacier. The reasons for this anomalous state of things will be made clear on another page.

The snout of the Puyallup Glacier affords many points of interest. In the last half mile of its course the glacier describes a beautiful curve flanked by precipitous cliffs which it evidently has undercut. Just above the bend it splits upon a diminutive wedge, the little lobe thus separated hanging like a triangular tongue down a steep slope. Evidently the glacier before it had receded to its present position, used to cascade over the little wedge as a solid stream, filling the capacious amphitheater below that marks the head of the Puyallup Valley.

Edmunds Glacier. This ice stream is the shortest of the series of eleven main glaciers of Mount Rainier. It lies on the west flank between the Puyallup and Willis Glaciers, and partakes of the characteristics of both of these ice bodies. Like the Willis Glacier it originates in a shallow cirque at an elevation of about 11,000 feet. This cirque is fed by direct precipitation, by drifting and by avalanches from the steep rocky flanks of the Liberty Cap massif. In addition the glacier receives, as stated before, considerable contributions from the Puyallup Glacier.

About a mile and a half above its terminus the Edmunds Glacier splits on a narrow moraine covered ridge. The north lobe, which is the shorter of the two, is of interest principally for the strong morainic ridges that parallel it. The south or main lobe carries a great deal of debris, only a narrow lane of clear ice extending between the ever broadening moraine bands on the sides. The south edge of the glacier is shielded by a long and high cliff of columnar basalt, aptly termed the colonnade.

The total length of the Edmunds Glacier is three miles; its average width some 2,000 feet. It reaches down to an elevation of 4,400 feet.

Nameless Interglacier. On the broad platform between the Edmunds and the Willis Glacier lies a great névé field one and one-half miles long and about a mile wide. At an altitude of 8,200 feet it splits on a narrow crest, sending a small portion of its

mass northward to the névé fields bordering the Willis Glacier. To the south, again, it contributes to the Edmunds Glacier. Perhaps the most interesting feature connected with it is the stream that issues from the main lobe. That stream, after cascading noisily down a steep amphitheater-like hollow, tunnels under the front of the small north lobe of the Edmunds Glacier, reappearing farther down reinforced by the melting water from that ice body.

In former times the interglacier attained much greater dimensions and coalesced with the Edmunds Glacier, just as the ice fields immediately north of it now form part of the Willis Glacier. It is to be hoped that a suitable name may soon be suggested for this beautiful interglacier, which in point of size is, next to the Paradise Glacier, the largest body of its class.

Summary and Conclusion. In making a careful study of the glaciers here described one cannot but be impressed by the fact that the summit of the mountain is not the source of all the "main" glaciers, but that cirques at relatively low altitudes give birth to a large percentage of them. Thus, of the five main glaciers here described, only two come from the summit and of these two, one, the Kautz Glacier is considerably inferior in volume to any of the cirque born glaciers. Of the entire set of eleven main glaciers of Mount Rainier, only six are summit born, to-wit, the Winthrop, Emmons, Ingraham-Cowlitz, Nisqually, Kautz and Tahoma, and five are cirque born, to-wit, the Wilson, Puyallup, Edmunds, Willis and Carbon.

The advantage of dropping the distinction between primary and secondary glaciers, on a basis of origin, is thus manifest. The real reason for abandoning Russell's system of primary and secondary ice streams, however, is of a more fundamental nature and requires further explanation.

Underlying Russell's system, evidently, is the idea that the summit regions because of their superior altitude constitute the chief gathering ground for snow, and that, therefore, they should normally feed the largest glaciers. The hollows in the interglacier tracts, on the other hand, because of their low altitude and relatively small capacity he held to be able to generate glaciers of subordinate importance only. Russell's climbs across the Winthrop and Emmons Glaciers no doubt served to impress him greatly with the vastness of these two summit

born ice streams. Interglacier, on the contrary, must have impressed him by its relative insignificance. It is easy to see how his intimate acquaintance with these glaciers on the northeast side of the mountain influenced him in the formulating of his scheme.

Had he been able to extend his investigations to the west side of the mountain, most probably he would have revised his views. He would have realized that the "Wedge" between the Winthrop and Emmons Glaciers is not really representative of the interglacier tracts on the other portions of the cone; indeed that it is merely an adventitious division point far down on the mountain flank, while the other great wedges all head high up, on the ancient crater rim, as they normally should on a volcano with the geological history of Mount Rainier. He would further have realized that on the extensive and deeply sculptured surfaces of such great wedges (as those culminating in Peak Success and Liberty Cap) there is abundant opportunity for the generation of large glaciers.

In Russell's days the manner in which cirques act as catchment basins for windblown snow was but dimly understood, nor was the rôle played by the wind in distributing the snows on mountains of great altitude fully appreciated. Yet that such is the case we now positively know. The cirques and other hollows on a peak like Mount Rainier fill with snow not as the result of simple vertical precipitation, but mainly through drifting under the influence of high winds. The ridges between the hollows after every storm are quickly bared, while in the wind sheltered depressions the snows accumulate to great depths. It is herein that lies the secret of the remarkable capacity that cirques possess for the collecting of névé and the generating of glaciers.

Had these things been clear to Russell, he never would have classed the Willis and Carbon Glaciers as primary, that is, as summit born glaciers. He classed them as such because he conceived them to be fed largely by avalanches from the summit névés. That they receive such avalanches is true enough, but these accretions are not to be regarded as constituting the glaciers' main source of supply. Large and imposing though the avalanches may seem, they probably are quite subordinate in volume to the snows gathered in the cirques by drifting.

LITTLE TAHOMA
P. M. McGregor

View of the rugged peaks from the divide between the forks of the Frying Pan glacier. July 30, 1912.

The enormous amphitheater for which the Carbon Glacier is noted, Russell thought of as a sequential feature, developed by the cascading ice, and now threatening by the continued recession of its head wall into the heart of the mountain to seriously curtail the supply of tributary summit névés. As a matter of fact the cirque constitutes the real generatrix of the ice stream, and the latter's fate does not at all hang upon the snow supply from above, as Russell thought. As long as the amphitheater catches a sufficient amount of wind blown snow the Carbon Glacier will continue to exist, even if the tributary névés on the summit were completely wiped out of existence.

The Willis Glacier is closely similar to its neighbor the Edmunds Glacier and requires no special explanation. Both ice streams as well as the Carbon must be classed as cirque born glaciers; the only difference between them lying in the vaster proportions of the Carbon's amphitheater, and these no doubt were determined by the superior size of the great hollow that originally existed in the mountain's north flank.

And now a word about another matter that even today is not generally understood. The precipitation on mountains of great elevation does not increase steadily upward all the way to the summit. As is well known to meteorologists the level of maximum precipitation is usually found at moderate altitudes, and therefore in many instances several thousand feet below the top. This is true also of Mount Rainier. The

heaviest snowfall on that peak probably occurs at levels between 8,000 and 11,000 feet. For it is between those levels that the moist air strata hang and that the great storm clouds habitually form. This in itself explains why so many of the mountain's glaciers and ice fields originate low down upon its flanks, mostly at levels below 11,000 feet. It also explains another fact, which must have struck more than one careful observer, namely, that so many glaciers have a length and volume wholly disproportionate to the limited capacity of their sources. And this characterization holds for cirque and summit born glaciers alike. One need but view the slender Kautz Glacier to feel at once convinced that the small initial supply which it draws from the summit névés is unable by itself to sustain an ice stream of so great length. The tributary it receives from Peak Success of course strengthens it considerably, but it is a notable fact that the glacier even before it receives this reinforcement appears larger than it was at the start. Obviously it receives accretions midway in its course, not only by precipitation but by drifting. The very size of its tributary suggests how considerable such accretions are likely to be.

Similar observations may be made on the other summit born glaciers, only in most cases the conditions will be found more complex than in the Kautz.

Especially striking is the downward enlargement of some of the cirque born glaciers, notably the Puyallup, Edmunds and Willis. Their beginnings are insignificant, yet each of these ice streams greatly augments in volume and in dimensions in its middle course.

Thus it appears that, after all, the mountain's flanks rather than its summit constitute the principal gathering ground of snow, and it is in that fact especially that we find warrant for placing all the large glaciers of Mount Rainier, whether cirque or summit born, on a parity with each other.

THE THERMAL CAVES

J. B. Flett

In common with nearly all our volcanic peaks, Mount Tahoma has steam issuing from the crevices in the vicinity of the crater. This thermal region is not confined to the crevices bounded by the rim of the main crater, but extends outside of that circle and includes a small crater which lies west of the main one, together with additional territory to the north of both. Snow and ice have filled both craters nearly full. As the season advances this ice mass gradually settles down leaving a well defined rim ranging in height from twenty-five to one hundred feet. As the center is filled with ice to an unknown depth, no steam can force its way to the surface. The diameter of the large crater is about sixteen hundred feet. The circumference or region of thermal caves would therefore, if confined to the rim alone, extend about a mile in length. The large crater dips down toward the east. It is far from being level, while the small crater dips only a few degrees toward the west. The rims of the two craters meet at the dome of Columbia's Crest.

On the northwest slope of the small crater the steam has melted all the snow off so there can be no caves formed on the outside of the rim for the space of a quarter of a mile. There are, however, some excellent ones within the rim. All around the rim of the large crater are found large dome-shaped caves where the ice is melted by the slumbering heat beneath. As a party approaches the large crater from the south side, these caves are often a source of great danger unless the party is warned by some experienced leader or guide. Often there is only a thin shell of the roof left, through which the novice may fall to the depth below, either to get a very cold reception or a very warm one or perhaps both, depending on the nature of the cavity. When the crater rim is reached, the danger from caves is over so long as the party climbs over the rocks which form the rim. These caves do not extend far on the outside on the south. On the north side the heat is so intense that the

snow is melted off for a long distance down toward North Peak. When viewed from the prairies south of Spanaway Lake this region appears black in striking contrast to the spotless white of the surrounding part of the summit.

The hottest caves are found on the northeast slope of Crater Peak. In one of these ice-water was boiled in exactly three minutes. At times there are passageways for several hundred feet from one large dome-shaped chamber to another. In short, one can pick out a suite of steam-heated rooms adapted to his needs. This is fortunate, for the ascent from the east side is long and strenuous. Here a party can stop for refreshments. On our ascent of the mountain last summer warm drinks, bouillon, etc., were prepared in short order. There is usually a stream of water flowing through some part of the floor. Water also flows from some of the ridges on the roof in such quantity that a cupful can be obtained in a short time. It is folly to pack water up to the summit. It can always be procured in some of the caves if one understands the summit and where these caves are. There is one just east of Columbia's Crest down in the large crater where the writer has passed two nights. There is plenty of water flowing down the slope of the floor, which is rather steep at this point. One of our party had to go down into this cave for a distance of about eighty-five feet after an alpenstock that was accidentally knocked down and bounded into the darkness. We put a rope on the young man while he went after it. After he secured it he rolled stones down for a long distance. We could hear these plunge into a lake or pond. If this were not the real Styx it at least reminded us of the classical description.

There are no deleterious gases nor sulphurous odors connected with the steam issuing from this countain. Both Mount Baker and Mount Adams belch forth poisonous gases of a sulphurous nature. None of the party felt any bad result from sleeping in these caves. The slope of the crater is always the floor. Sometimes this is so steep that one is liable to slide down, perhaps into the lake above referred to, or at least take several jolts over jagged cliffs which might have an injurious effect on his anatomy. In order to prevent this we drove an alpenstock through the thin shell of ice above the entrance and through into the slanting floor. Our rope was fastened to this. Then each man fastened himself to the rope. Strung out

in this fashion we tried to sleep on the steep angle of the crater. Fortunately there were several large rocks above which we made our beds. We were careful not to push too much against these rocks for we were afraid that they might break loose. Bad as were these conditions the night was passed more comfortably than a night is spent at Camp Muir or Camp Curtis in a cold wind.

Strangers would not think that the small openings under the crust of snow or ice could lead into such large chambers within which several hundred people could find warmth and shelter. At times the roofs of these caves must collapse to the floor, just as the ice caves do where the water rushes out of the end of a glacier. This uncertainty makes a man feel rather uncomfortable when he realizes what might drop on him while he is within. The steam comes quite fast, at fixed intervals like the breathing of a large animal. The steepness of the slope, the danger of collapse, the puffing of the steam, the pitch darkness, and the general hell-like surroundings all taken together make indeed a novel situation which one will remember for a long time.

Near these caves are several kinds of moss and the common liverwort (*Marchantia polymorpha*). These have never been observed in the fruiting condition.

These thermal caves formed between the ice and the crater rim or on the slope of Crater Peak must not be confused with the lava caves which are so common to the south of Mount Adams. The cause of their formation is entirely different. There are no lava caves in the vicinity of this mountain. They are caused by the cooling of the outer surface into a crust while the inner portion remains liquid and flows on, leaving an empty shell often half a mile or more in length. They are more permanent than the thermal caves which have only ice for a roof. These thermal caves vary as the snow varies from year to year. They can only be formed where the steam issues forth and the snow accumulates in such quantity as to form ice.

Plate XVI.

INNER SLOPE OF THE CRATER MELTED BARE OF SNOW BY STEAM

Plate XVII.

A. H. Barnes

SHOWING WHAT IS BELIEVED TO BE STEAM ISSUING FROM THE DARK CAVITY UNDER WILLIS WALL OF MT. RAINIER

CHANGE IN WILLIS WALL

J. B. Flett

About eighteen years ago the writer visited the vicinity of Willis Wall in an attempt to find a route around the east side of the mountain. The weather was quite foggy in the early part of the day, but about noon the clouds began to break away. As we approached the Carbon Glacier from Spray Park the fog cleared away from the base of the mountain and revealed Willis Wall in all its rugged grandeur, while in front and below us the Carbon Valley was full of fog. It appeared like a body of water. We cautiously approached the edge of the precipitous bank above the glacier and rolled stones down for we could not see the bottom. We judged from the distance the stones rolled and the way they crashed and bounded from cliff to cliff that we did not wish to descend at that high altitude.

While we were deliberating on the next move, a huge avalanche came from the top of Willis Wall and bounded from cliff to cliff as it made its rapid descent in the form of a massive cumulus cloud. When it reached the upper end of the glacier the cloud-like appearance ceased. It then came tearing down the steep slope of the glacier presenting the appearance of a train of cars as the snow and ice were ground into dust-like particles which rose like smoke and steam from a locomotive. At that time the slope of the mountain was much more gradual near the lower part of the wall, so that the avalanche moved down for a long distance before it finally came to rest. The vast mass of ice falling for more than three thousand feet, grinding and abrading the rocks, has wrought great changes on this slope, so that now Willis Wall presents a hollow circular appearance which is dark during the early part of the forenoon.

Some observers have thought that great changes have taken place quite recently and that volcanic action has been in some measure responsible. Several parties have observed steam issuing from crevices in this dark circular portion already referred to. Our party this summer saw it very plainly and

took several photographs of the condensed vapors, for which see accompanying illustration.

Some of the members of Major Ingraham's party called our attention to this phenomenon as we passed through Spray Park. When we reached this side of the mountain the next day, we witnessed a fine exhibition of steam curling up and down, to and fro, over the face of Willis Wall. Its center of activity seemed to be about half way up the slope and well over toward the Avalanche Camp side. There were several other places below where the vapors appeared to be pouring forth. We resolved at once to go up and investigate as near as the avalanches would permit. As the sun rose and lighted up this dark cavity toward noon, the steam began to vanish. We reached the steep slope of the mountain about noon. At that time there was no apparent steam. We rested for an hour with cameras ready for the avalanche that did not fall. We then concluded that the vapor was caused by the currents of cold air from this dark cavity coming in contact with the warm air from the outside. The more we think of it the more we are convinced that our conclusion was rather hastily formed. The steam appeared so real from our camp at an altitude of about 5,500 feet that a more thorough investigation is really necessary to get at the truth. No one would dare to attempt to reach the apparent source of activity. From Avalanche Camp or from the glacier below, valuable observations could be made to determine whether this is steam or the warm and cold currents coming together.

The shape of the cavity and the enermous amount of rock material on the glacier would seem to indicate that something unusual had taken place. The hollow cavity could hardly be formed by the avalanche. The writer has crossed this glacier many times, but has never before seen anything like the amount of moraine material that there is at the present time. The glacier is simply loaded with débris from twenty to fifty feet high for its entire width.

The hottest part of the summit is on the north slope of the crater down toward North Peak. This fact, too, points to a possible slight eruption on Willis Wall or issuing of steam therefrom. Tourists to the north side of the mountain should make a careful study of this region to ascertain the truth.

Careful observations for a period of a week or two would do much to solve this problem.

When the atmospheric conditions are just right, steam can be seen plainly on the summit. At other times the steam can not be seen at all unless one is very close to the place where it is issuing forth, so will it be in the case of Willis Wall.

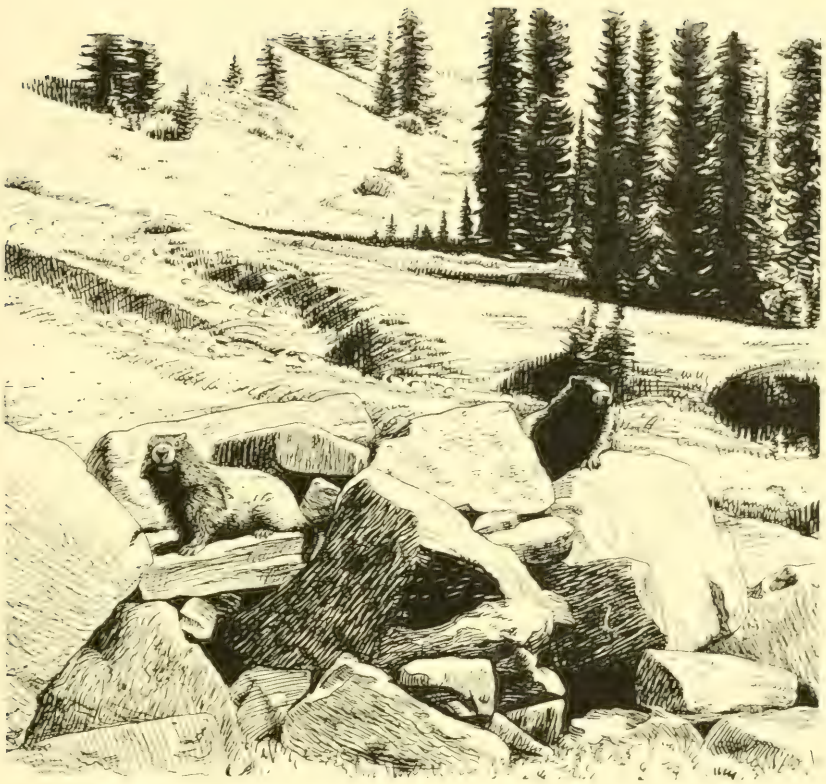
Sunset from Camp Curtis *H. B. Hinman*

THE WHISTLING MARMOT

Trevor Kincaid

To one unaccustomed to mountain slopes and the peculiar life associated with the world above timber line, the manner in which the marmot introduces himself to strangers is both startling and pleasing. When the amateur mountaineer, leaving his human associates far below in the valley, toils upward above the limit of tree growth and emerges into the vast solitude of cloud-swept steeps, he feels far removed from others of his kind. Suddenly a shrill, buoyant whistle breaks upon his ear, and he is startled to think that the seeming waste of rock and moss is tenanted by man, and by youthful members of the species at that! When, however, he searches for the author of the flute-like cadence he is astonished to find the musician is not a biped but a four-footed mountaineer, clad in a warm furry coat to meet the exigencies of his alpine domicile. Familiarity with this fur-clad flutist does not breed contempt, but leads us to appreciate more fully the picturesque qualities of this dweller upon the lofty places of the earth.

The marmot belongs to the extensive order of mammals, named in accordance with their universal gnawing propensities, the *Rodentia*, a group which includes the rats, hares, squirrels, beavers, etc. Tracing the family tree of our whistling friend a little farther, we find that zoologists classify him in the same family with the squirrel, chipmunk and ground-hog, viz., the *Sciuridae*. One more climb into the genealogical arbor and we find that our local alpine marmot belongs to the genus Marmota, and his full name when he is on dress parade in a museum, is *Marmota caligata*, this designation having been applied to the animal by Eschscholz in 1829. In some accounts of the species he travels under the alias of *Arctomys pruinosus*. The common names that have been used in describing the animal are also somewhat varied, such as, whistler, whistling marmot, hoary marmot, gray marmot, alpine marmot, etc. In early days the Canadian fur traders called the creature, siffleur. The word marmot is derived from the French, marmotte, and this by a



The Whistling Marmot. Pen and ink rendering from a photograph taken in Buck Creek Pass

roundabout route through the Italian from the Latin *mus montanus*, or mountain mouse.

Ten species of marmot are known to exist in the northern hemisphere, two being found in Europe, three in America and five in Asia. The alpine marmot of Europe has been known for generations to the mountaineers of the Old World. It resembles very closely our American whistling marmot and its habits are quite similar. The long-tailed marmot of the Himalayas (*Marmota caudatus*) is another close relative. The groundhog of lower altitudes is a cousin, zoologically speaking, of the marmot, while the prairie-dog is a sort of second cousin, since he belongs to another but closely allied genus, *Cynomys*. The bobac of the Asiatic plains is another kinsman of the marmot tribe.

Unlike their near relatives, the squirrels, the marmots do not possess cheek pouches for the temporary storage of food,

The habitat of the Marmot is from the Columbia River far into Alaska and from the Pacific to Hudson Bay

but on the other hand they are characterized by the peculiar formation of the fore limbs, since the thumb is reduced to a mere rudiment and is provided with a peculiar flat nail. The body of the animal is nearly two feet in length with a tail about six inches long. The color is grizzly gray with some dark markings. The home of the local species is in the region extending from the Columbia River to beyond 60° north latitude, and eastward to Hudson Bay. An allied species, the yellow-bellied marmot (*Marmota flaviventris*) is found in the southern portion of the continent, from Texas to California and New Mexico. The marmot of the Olympic Peninsula is by some authors regarded as a distinct species, since it differs from its relative of the Cascades in certain minor characteristics, but it is usually regarded as a mere variety of the more widely ranging species.

The habits of the marmot, aside from its unusual whistling powers, are similar to those of related burrowing rodents. The tunnel made by the animal extends for some distance among the crevices of the rocks in the midst of which it makes its home,

and it retires when alarmed to an inner chamber where it remains safely ensconced till all danger has gone by, or till such time as curiosity gets the better of its judgment. Since the animals are of a social disposition, small settlements are established in favorable situations. As befits good citizens each marmot is zealous for the common welfare and stands ready at an instant's notice to signal the approach of danger to his fellow townsmen. Once the tocsin has sounded all are upon the qui vive till careful investigation has disclosed the cause of the alarm.

Roots, leaves, and insects constitute the principal food of the marmot; these the animal is able to secure without wandering far from its burrow. On the approach of winter the beasts retire to the inner recesses of their cavernous dwellings and go to sleep. They do not awaken till the returning summer brings to them the growths of vegetation which follow so closely the retreating snow-line. Some slight provision is, however, made for tiding over an inclement season since one chamber of the burrow is filled with dried grass before the creature goes to sleep in the fall. With the dawn of a new season the marmot wakens from his slumber and stands ready to give his buoyant greeting to friend and foe alike, as the life of the mountain is released from the icy grip of winter.

HEATHER *C. R. Cores*

KNAPSACKING IN THE HIGH SIERRAS

R. L. Glisan*

The most attractive feature of the Sierra Club outings in California is the knapsack trips.

On the 27th of June, 1912, about 185 Sierra Club members left Springville in Tulare county, California, on their annual outing. Tramping easterly up the Tule river across to the Kern and northerly up the wonderful canyon of the Kern almost its entire length, swinging eastward again we crossed the Sierras, ending a month of scenic ecstacy by dropping over 7000 feet in one day from the high mountains to the desert on the shore of Owens lake, where we caught our special homeward bound.

To describe the entire outing would take too much space, but it may be possible, with some regard for brevity, to describe one of the knapsack trips.

On July 11th a knapsack party left the main camp at Moraine Lake on Chagoopa plateau above the Kern. The party consisted of a member of the Outing Committee and his wife, five other club members, a Mountaineer, and a Mazama, four ladies and five men, all having had knapsacking experience.

The previous evening the provisions were weighed, put in small bags, labelled, and apportioned. Canned goods and bulky articles were discarded as far as possible, preference being given to powdered milk, soup tablets, and hard-tack, while eiderdown sleeping bags were taken instead of blankets. The allotted packages were placed in respective sleeping bags, rolled and strapped in special harness designed by a club member. Personally I preferred a specially arranged sleeveless hunting coat, carrying my sleeping bag in a small compact roll. The total individual equipment weighed from twenty to thirty-five pounds, cameras, fishing rods and tackle helping to make the greater weight. Each morning the provisions were reapportioned, making due allowance for amount already consumed.

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Leaving Moraine Lake we crossed the Chagoopa plateau to the rim of the Big Arroyo Canyon and after several attempts, finally selected the head of a ravine where a dry water course furnished stepping stones and scattered pines below gave fair assurance that the descent would not be too abrupt on the lower slopes. On the plateau above, mountain bluebirds flitted across our path and near the rim we noticed wolf or coyote tracks, no doubt made by the "invisible choir" in the timber the evening before. On the way down we heard grouse call and on a projecting point we found curved mountain sheep horns, mute evidence that our route had been favored by that monarch of all mountain climbers. A descent of 1500 feet brought us to the Big Arroyo, with our packs by that time tested and adjusted as from then on to be like part of our own anatomy.

Going up stream we forded near Lost Creek and while some rested under the pines, others prepared fire, and the three anglers hastily putting their rods together whipped the near by pools, each securing in less than an hour twenty or more trout. The trout were marvels of beauty, for here the rainbow of the Kern and the trout of Golden Trout Creek had intermingled creating a kaleidoscope of color, varying in shade as they came from sunny riffles over yellow granite or kept more secluded in dark pools. Probably you all know the rainbow, but the golden trout is only found in the creek of that name, a tributary of the Kern, and in several near by streams and lakes where they have been transplanted by the Sierra Club. Carrying fifty or more trout on various occasions, in fish cans, on mule back, for several days at a time, the club has achieved remarkable success. One hundred, planted five years ago, increased so amazingly that thirty anglers securing the limit of twenty each in Rock Creek one day made no appreciable difference in the number of its finny inhabitants. To appreciate their wonderful coloring one has to see the golden trout as it darts, a blaze of gold, from its hiding place under bank or boulder for the fly; or caught, lies gasping on the green sward showing the brilliant gold underneath, with sides of paler hue divided by a horizontal band with dark back and strongly marked dots on fin and tail. The largest golden trout caught during the outing weighed three and one-half pounds and the record rainbow eight and three-quarter pounds, both caught in lakes stocked five and seven years before. The trout in the streams were smaller but better fighters and more attractive flavor.

But I am widely digressing—leaving the Big Arroyo we took the dim zigzag up Lost Creek, so called because the creek slips so inconspicuously down the canyon wall that many seeking Lost Creek have followed up Soda Creek, its more pretentious rival.

Pausing here and there under the cooling shade of some isolated pine, to glance backward at the widening view, we soon entered clumps of timber interspersed with little glades, where dodocatheon and other dainty dabs of color blossomed on the green turf edging the tumultuous stream. Near the trail we passed a camp-fire and paused to glance at a bear cub tied by a halter rope with a hobble for a collar. The cub, terrified, climbed up the hunter's coat and whimpering, clasped him by the neck, and for want of better shelter buried his head against the hunter's broad shoulder, a large skin stretched near by pathetically demonstrating why the cub's mother did not offer the desired protection.

Late in the afternoon we made camp in the tamrac pine at 10,500 feet elevation, and after bath and supper drew close to the genial rays of the camp-fire on the ledge, the wall of rock reflecting the heat and offering support for tired limbs.

In the morning the men rose with the dawn and soon had breakfast sufficiently advanced to warrant calling the ladies. Where the ladies had selected sleeping quarters a self appointed committee of three solemn looking mules were seen, with long ears forward, immovable as statues, gazing at the strange mummy-like sleeping bags, hidden from us; but detected by them, as foraging they had wandered up the glade from the hunter's camp below. A call from us produced mutual consternation, as fair heads emerged from dunnage bags and met the downward stoical glance of the inquisitive intruders.

Breakfast over we followed up the creek. Tamrac gave way to scattered Japanese-looking foxtail pines, whose clustered tips like fox tails extended on twisted limbs from dark brown trunks, and polished golden brown dead branches and stems rose above the green boughs, offering an effective contrast to the huge white granite boulders, erratics—left by a retreating glacier ages ago.

Halting at Columbine Lake to absorb the reflection of Sawtooth lifting its jagged crest like a shark's tooth ripping the heavens above, we slowly worked up the steep slope and at last made the huge slab which formed the summit, 12,340 feet.

VIEW FROM SUMMIT OF SAWTOOTH MT.
R. L. Glisan

Showing the Mt. Whitney group on the horizon with a gathering storm, and sunshine in foreground. Mt. Whitney is 14,502 feet high and Sawtooth Mt. is 12,300 feet in altitude.

The view from Sawtooth was superb, a wonderful panorama of the High Sierras. To the north we caught glimpses of the peaks guarding the Kings River Canyon, which cuts westerly through the Sierra range. Just below the King we could trace the Kern on its journey south dividing the Sierras into two great ranges, the Kaweahs rising on the western range and Whitney, Williamson, and Langley on the east, each over 14,000 feet, but such close rivals that no one peak was conspicuous above its neighbors and yet all lifted above the desert to the east as to give one an overwhelming sensation of height and grandeur as we gazed from the summit of one or the other later in the outing. To the southwest lay the San Joaquin valley with the hazy blue coast range beyond and at the head of a valley just below, we could recognize the mining camp of Mineral King.

A thunder storm driving toward us across the Kern made the scene more impressive and us more uneasy, as on these peaks of exposed rock the air becomes so surcharged with electricity during a storm that often electric sparks will flash from finger tips as the climber reaches for some handhold.

We made the descent by a different route taking us down to a saddle above the lake and then down a steep snow slope, the latter more of a novelty to the Californians than to the representatives from the north.

Returning to camp we crossed the western ridge and descended into the Five Lake basin, selecting camp among the pines on the shore of the Middle Lake, where sunset and sunrise, mountains and clouds were so clearly reflected as to puzzle one to trace the dividing line.

The next morning we were up as "rosy fingered dawn" bathed the high peaks with silver light long before the sun could pour its golden rays down where we were hidden. It was a morning of surprises. We explored the basin and the basins further west. We fancied each a gallery, the lakes paintings, the supreme effort of world renowned artists, and we the committee to award the prize. Some lakes had bands of green, dotted with flowers of brilliant hues; some had talus of granite or sloping sides polished by ancient glaciers. Others were encircled with tall tamrac or again with fantastic foxtail pine. Banks of snow formed the edge, or perpendicular walls rose

sheer above. In sunlight or deep shadow the water varied from light blue to deepest indigo.

In one glade we startled a horse which, wilder than a deer, dashed away and at a safe distance half-circled, with arched neck, flowing mane and tail, curious but cautious. We wished in some way we could warn him of the winter snows to follow the Indian summer, when he would repent deserting the unfortunate who had brought him into the high places.

Towards midday we reluctantly left the lake basins and following down what in spring was a boisterous cascade, in summer a stone stairway, we again made the Big Arroyo farther up than the ford we crossed the first day. Here the fishing was even better than below, and enough trout were soon caught for lunch. The anglers lingered while the others pushed on up stream and made camp in the last fringe of timber at the head of the canyon, 11,000 feet elevation. The anglers soon followed, having easily caught the more generous limit allowed here of fifty trout each, although handicapped by their packs. Trout left over were taken to the next camp, our decreasing provisions making their weight less noticeable.

The following morning we went through the Nine Lake basin in search of the pass. Our compass and map designated a slight sag in the rim just above, although tempting defiles shadowed by high walls lay on either side. Several of the party reconnoitered to the right, while others made for the rim in front, which proved correct as the pass to the right led into another watershed. Taking heavy packs over a 12,000 foot pass, up shifting rock and down a corrugated snow slope, was a severe test, but no one flinched and soon we were in the amphitheatre or cirque at the head of the Kern-Kaweah and after noon we made camp where the creek from Milestone came cascading down the canyon wall.

The following morning we went up the creek to Colby Pass, named for the Sierra Club secretary who had discovered this, the only feasible route for a future pack animal trail connecting the two great canyons of the King and Kern. Below the Pass to the north lay the small lakes at the head of Roaring River.

Following up the ridge to the east, keeping close to the edge where we could look down perpendicular walls with spires and minarets of thinly weathered rock jutting out and forming

vistas of valleys far below, we came to Milestone Bow with Milestone opposite, a shaft with squared edges suggestive of a monument raised by some fabled giant.

Returning we again lifted our packs and followed down the Kern-Kaweah and lest we lose any of its increasing grandeur, a mile above the Kern where the apology of a trail disappeared over a projecting point, we kept the water's edge, climbing over slippery boulders, squirming around wet walls, or fighting brush, rewarded by the mad rush of water deep set in high canyon walls. Tired we made the main camp, where the Kern-Kaweah takes its last plunge into the Kern below, thus ending a knapsack trip I defy any one to equal.

PTARMAGIN
C R. Corey

LOCAL WALKS

Winona Bailey

No small part of the activity of the Mountaineers' club is spent on local walks. In Seattle during the year beginning December, 1911, thirty-six walks were successfully conducted by the committee in charge, twenty-three on Sunday and thirteen on Saturday. The average Sunday walk took all day for a distance of about ten miles. Some of the Saturday walks were for the afternoon only, occasionally arranged to close with a big dinner at some country inn, where quality of food and good company attracted many, whose work prevented participation in the walk earlier in the day.

The spring walks closed in June with a big reunion, clambake, and camp-fire on Blake Island, the home of Mr. and Mrs. William Pitt Trimble.

The numerous street car lines running out of Seattle and its matchless water ways, including Lake and Sound, give opportunity for endless variety in the selection of route and objective point. About once a month a chartered steamer has carried from one hundred to two hundred people across the Sound to some otherwise inaccessible spot, and waited to bring them back in the evening. Sometimes the regular boat has been used, occasionally the railroad. Trips across or around Lake Washington alternate with Sound and Interurban trips. The region covered extends from Tulalip reservation near Everett on the north to the prairies south of Tacoma, from Bothell to Renton in the lake district and west into Kitsap county and across to Hood's Canal. The vast territory accessible and the constantly increasing number of roads and trails make it seldom necessary to repeat a walk entirely.

There have been six joint walks with the Everett members, often planned so that the parties met midway on the Interurban; and in May when the violets were in bloom everyone joined gladly with Tacoma walkers.

The extra strenuous have had two opportunities to test muscle and endurance, one for twenty-two miles to Renton by

way of Lake Sammamish; the other for thirty miles from Everett to Seattle.

The Everett branch has conducted twenty-two walks radiating from Everett in every direction and similar in their variety to those of the older club.

In April the Tacoma members began to announce local walks in the Bulletin and since that time have taken ten one-day trips.

The local walks committee has also planned and carried out two most successful and enjoyable three-day trips, one in September known as the Labor Day trip, by chartered steamer to the beautiful San Juan islands, a trip now becoming a kind of annual pilgrimage to Mt. Constitution and Rosario, the home of Mr. Robert Moran; the other a glorious midwinter frolic in the snow at Index, the gateway of the Cascades. Besides this the Everett club managed a three days' outing the last of May to Mt. Index and took eighteen people to the top of West Index. The Tacoma club took twenty people in June on a rare scenic trip to the top of Beljica peak near Mt. Rainier, a most appropriate preliminary for the summer outing on the higher mountain.

PTARMAGIN EGGS *A. H. D.*

"WINTHROP GLACIER. FROM THE TRAIL TO GRAND PARK"

Copyright, A. H. Denman

Showing in the distance the Winthrop glacier, Willis Wall, and the head of the Carbon glacier. The Winthrop river and its canyon, 3000 feet below this point of view, is in the foreground. Aug. 3, 1912.

OLYMPUS FROM THE NORTH—
Copyright by Earl Rice

Showing a side rarely if ever climbed, being the side opposite the route of the 1913 Outing. Taken from an elevation of 6000 feet and at a distance of about two miles looking across the largest glacier flowing from Olympus. The edges of this unnamed glacier shows in the lower right foreground. Aug. 13, 1912.

Plate XXIII.

THE QUEETS VALLEY—
Chas. Albertson

Looking down the valley of the Queets river toward the Pacific ocean, being one of many such Olympic vistas. This is taken from the proposed site of Permanent Camp, Outing 1913, and is located among the head waters in the park country.

Plate XXIV.

THE QUICK AND THE DEAD

P. M. McGregor

MT. OLYMPUS FROM
BLIZZARD PASS
Chas. Albertson

Distant about two miles and 8250 feet high. East and Middle peaks, seemingly one, though a half mile apart, show close together as the high point. The West peak, two miles farther on, appears lower and at the right. The climb during the Outing of 1913 will be made up the Hoh glacier in the foreground and along the left sky line.

BERGSCHRUND—
At Head of
Winthrop-White Glaciers
H. V. Abel

This was of great height and formed the chief obstacle to the ascent. The crossing was made by following along the lower lip to and up a dangerous ice bridge to the cornice above. This elevation is fully 14,000 feet and is located just below the saddle between Columbia Crest and Liberty Cap.

XEROPHYLLUM TENAX
Mabel Furry

Indian Basket grass, or Squaw grass, found in high altitudes and used by the Indians in their basketry.

NOTES OF OTHER CLUBS

EDITED BY A. H. ALBERTSON

Mazama

The following is quoted from the 1912 Mazama: "The annual encampment at Mount Hood from July 15 to 29, 1912, is to be included among the best of the 19 annual outings conducted by the Mazamas since the organization of the club. The camp was located a short distance from Cloud Cap Inn, in a grove of sub-alpine trees and convenient to the mountain. The largest number of people in camp at one time was 125. The official climb on July 22 was participated in by 65 persons, who were joined on the summit by a large party of climbers from the south side of the mountain, conducted by the Portland Y. M. C. A. * * * An edition devoted to the Mount Hood outing and the St. Helens outing of 1908 is in course of preparation. It is expected that this number will be issued early in 1913."

Rocky Mountain Climbers

The club planned for this year a program of tramping which covered the last fourteen days in August. One hundred men and women, including residents of sixteen states of the Union, took part. The trip was leisurely, not more than thirteen miles being covered in one day, the dunnage being carried by wagons. Two main trips were taken. The first was from Camp Arapahoe, on the side of the Arapahoe Peak, to Arapahoe glacier. This took two days. During this trip the corner-stone of the Rocky Mountain Climbers' cottage was laid. This cottage is the first in a chain to be erected throughout the mountains of Colorado.

The second main trip was from Arapahoe Peak to the top of Bald Mountain by way of Silver Lake and Camp Albion. After climbing Mt. Audubon the party went to Ward by way of Stapp's Lake and Beaver Park. Long's Peak was also climbed.

The Rocky Mountain Climbers have been in existence six years and have about two hundred members. It is incorporated. The officers are E. G. Fine, president; John R. Bell, vice-president; W. H. Laney, treasurer.

Colorado Mountain Club

This club was organized in Denver in April, 1912. The regular schedule of local walks was carried out during the summer ending with their first annual outing on Mt. Evans. The outings of this club are similar to those of The Mountaineers. Mr. James Grafton Rogers is president and Miss Mary S. Sabin is secretary. The Mountaineer welcomes this new club of the out-of-doors.

The Alpine Club of Canada

The main camp of the annual summer outing of the Alpine Club of Canada was pitched at Vermilion Pass, 5300 feet above sea level. The camp lasted from July 31st to August 11th.

Vermilion Pass is about seventeen miles west of Banff by railroad and eight miles from Castle Station—seven being by road and one by trail. There were about one hundred in camp on August 1st, all told there were one hundred and sixty-eight. The camp-fires and Sunday services are very similar in general character to those held by The Mountaineers.

It will be remembered that the Alpine Club of Canada requires its applicants for membership to climb some mountain before being accepted as members. This year there were fifty-three who qualified for membership. Applicants having accomplished the required climbs are referred to as being graduated, and the climbs are spoken of as being graduating climbs. These graduating climbs are very much like the "try-out" trips of The Mountaineers and constitute one of the main activities of the club at their main camp. In addition to these graduating climbs a number of other trips were carried out. A trout fishing expedition was made to upper Vermilion Lake. The ascent of Mt. Whymper was made and a two-days' trip to Prospectors' Valley; a climb of Ten Peaks Valley and a three-days' climb to Mt. Ball.

The Alpine Club holds its annual meeting and election of officers during the progress of its annual outing.

Among the guests were four members of the Appalachian Club.

The American Alpine Club

The objects of the American Alpine Club are primarily scientific. No definite walks or outings are arranged. The by-laws state that the main purpose is the study of the high mountains of America and the publication of monographs of these mountains through the medium of their own publication, Alpina Americana. Monographs of a number of mountain subjects have already been published. The membership is composed largely of scientific men and experienced mountain climbers. The club has no definite headquarters, meetings being held in convenient cities on the Atlantic Coast.

Sierra Club Outing, 1912

The Sierra Club held its summer outing of 1912 in the Kern River Canyon, entering the Sierras from Springville and going eastward to Lloyd meadows through a beautiful grove of sequoias; thence in a northerly direction through the magnificent Kern Canyon to the junction of the Kern and Kern-Kaweah rivers. From the Kern Canyon a détour was made into Long Meadow, where the streams abound in golden trout. The Sierra Club as is their custom stocked several lakes and streams with small trout. From the junction of the Kern and Kern-Kaweah the party proceeded southeast to Crabtree Meadows, from which Mt. Whitney was climbed and then on over Army Pass (12,000 ft.) to Cottonwood Lakes and on down Cottonwood Creek to the desert near Owens Lake.

The main party covered a distance of about one hundred and fifty miles, although many smaller divisions made additional side trips. The party numbered two hundred people and besides Californians included representatives from Canada, Oregon, Washington, the Atlantic Coast, Honolulu and Europe. Ascents by various members of the party included the south Kaweah (13,816 ft.), Sawtooth Mt. (12,300 ft.), Milestone Mt. (13,643 ft.), Mt. Tyndall (14,025 ft.), Mt. Guyot (12,300 ft.), Mt. Williamson (14,384 ft.), Mt. Whitney (14,502 ft.).

SCIENTIFIC NOTES

Edited by Gertrude Streator

For several years various members of the Mountaineers have collected insects for Prof. O. B. Johnson, Professor Emeritus of the University of Washington. This is splendid work for the club members and Professor Johnson's appreciation is expressed in the following letter received this fall:

"To the members of The Mountaineers.

I am writing this to express my thanks for the kindly interest taken by the members of your club in collecting insects to be sent to me. These arrived in due time in good condition. Many of them were especially desirable and two or three were new. Coleoptimists are fortunate in having the services of the Mountaineers, as they reach unusual altitudes, and many of the problems of distribution, etc., have to do with what is called the glacial edge or ice pack, those ravellings of the old glacial era that are left on the perpetually snow-capped mountains. Few of us "beetle enthusiasts" have facilities for going to those places that your club is organized for. So I repeat it is fortunate to have such an ally.

The group of beetles that is just now holding interest is the *Cocnus Nebria*. Of the twenty-seven species found in the United States, fifteen of them occur in Washington and five of them were described as new in the last five years. There are undoubtedly others yet to be "discovered" in the peaks to the north of Glacier Peak and the mountains north of Spokane.

One of our most exciting surprises came in the collection made on the Glacier Peak trip. Three examples of *Pterostichus* were decidedly new and so were submitted to Dr. Van Dyke of San Francisco, who says in part, 'The species of *Pterostichus* sent is one that has long been misunderstood and has many pages written about what it was and what it was not. I was about convinced that it was a new species when suddenly a glimmer of light appeared. As a result I succeeded in definitely placing it. In other words your specimens are the long-lost, the long-overlooked, unrecognized and misunderstood *Pterostichus brunneus*.' It will now be restored to the check list.

This is but a hint of what may be done for this one branch of science. I had expected to send a list of species collected on the three trips, 1910, 1911, 1912, but it just strikes me that a bare list of the names will not appeal very strongly to a novice, and so I have resolved

to prepare examples of each of the species captured for the purpose of illustrating the label. They are in a glass-covered box and can easily be referred to 'at home' with no danger of breakage in passing around.

Cordially,

O. B. JOHNSON."

The collection of fifty specimens was delivered to the club and is in the custody of the Historian, where it may be studied by anyone interested. The collection is a very valuable addition to the club properties and it is hoped will form a nucleus for a permanent exhibit of scientific interest.

Rainiera stricta, a plant belonging to the composite family, was found on the 1912 outing growing in abundance all the way from the Manastash ridge to the slopes of Mt. Rainier. This plant bearing the name of the great mountain had previously been reported only from the mountain itself or the region directly south.

Mr. E. B. Webster, editor of the Olympic Leader, who was a member of the Mountaineers' first annual outing, has the honor of adding one to the list of plants known to grow in the state of Washington. The new plant belongs to the composite family and has been named Senecio Websteri by Mr. C. V. Piper, government agrostologist and author of "The flora of Washington." WINONA BAILEY.

Lake Sammamish is situated several miles east of Seattle. The submerged forest in this lake has an area of about fifty acres and it is near the west side, not far from the head of the lake. The broken-off tops of the trees are awash at summer level of the lake. This fall the lake has been lower than ever, the tops being about four feet out of water. Most of the trees stand nearly vertical, a few are considerably inclined. The size of trunks at water surface ranges from about eight inches to three and a half feet in diameter. The trees are of the usual forest variety of this region.

Forty-eight years ago, Mr. C. B. Bagley of Seattle first saw these trees while on a canoe trip. He found it troublesome to paddle through them. At that time the broken tops extended high above the water for varying lengths. His impression was that they then had been submerged perhaps forty or fifty years.

Apparently this phenomenon is not the result of a slide from any adjacent high steep ground. The nearest shore land is rather flat and gently sloping for a good distance from the lake. It is possible, however, that a precipitous side of a deep channel gave way, causing a slide. A sudden damming of the lake is improbable, as the formation at outlet does not indicate it, nor do the shores of the rest of the lake. A subsidence of the ground seems to be a probable cause, but what caused the subsidence is not apparent. R. H. McKEE.

THE MOUNTAINEERS

DIRECTORS FOR THE YEAR 1912-13

Prof. Edmond S. Meany, President.....4025 10th Avenue Northeast
George E. Wright, Vice-president.....1227 38th Avenue North
Chas. M. Farrer, Secretary.....508 Pioneer Building
John A. Best, Assistant Secretary.....433 New York Block
R. H. McKee, Treasurer.....606 Minor Avenue
Gertrude Streator, Historian.....1726 13th Avenue
Lulie Nettleton, Editor.....1806 8th Avenue West
Prof. J. B. Flett.....107 North Tacoma Avenue, Tacoma, Wash.
Charles Albertson.....1616 Nob Hill Avenue
Roy Hurd.....1522 6th Avenue
Dr. H. B. Hinman.....2605 Baker Avenue, Everett, Wash.
L. A. Nelson.....1616 Nob Hill Avenue

MONTHLY MEETINGS OF 1912

January 19, 1912. Prof. J. B. Flett of Tacoma told the fascinating story of his great trip last summer in which he traveled completely around the mountain. The lecture was illustrated by numerous lantern slides.

February 16, 1912. Mr. Bert P. Kirkland, Supervisor of the Forest Service of the United States Department of Agriculture, addressed the club upon "The Forest Service."

March 15, 1912. Mr. W. A. Ross, Assistant General Passenger Agent of the Great Northern Railway, gave an interesting illustrated lecture on the wonderful beauties of Glacier National Park, Montana.

April 19, 1912. Captain James V. Martin, who after nine years' experience upon the sea abandoned the limited oceans of water for the unlimited oceans of air, gave an illustrated lecture entitled the "History and Progress of Aviation." His comparison of the depth, density, and motion of the water with that of the air served as a basis for his later comparison of seafaring boats with air-ships.

May 17, 1912. Slides of the local walks. Messrs. Gleason and Cruse furnished one of the most enjoyable entertainments of the year when they so kindly exhibited the slides prepared from the pictures taken on the local walks. It was indeed a fulfillment of the old wish:

"O wad some Pow'r the giftie gie us
To see oursels as others see us!"

No monthly meetings during June, July and August.

September 20, 1912. Nominations for the Board of Directors.

October 18, 1912. Slides of the Mount Rainier outing of 1912. Mr. W. H. Gorham gave a pictorial narration of the trip to Mount Rainier. The club made its approach from the east; crossed the Cascade divide; encircled the mountain on the north; visited almost unknown regions whose scenic beauties are unsurpassed; then dropped down on the northwest side of the mountain, and left the wonderful national park by way of Fairfax. The pictures were of unusual interest, portraying not only the grandeur of the great mountain, the exquisite Alpine flora, but also many incidents of work, play, campfire and trail.

November 15, 1912. Miss Lulie Nettleton entertained the Mountaineers with a graphic description of her trip with the Sierra Club, California. Among the many interesting things she told were:

I. The aim of the Sierra Club.
   1. Protection of natural parks, etc.
   2. Building lodges on the mountains.
   3. Club rooms, etc.

II. The summer outing 1912.
   1. Equipment.
   2. Camps—their management.
   3. Knapsack trips.
   4. Mountains ascended: Mt. Whitney, Sawtooth Mt., the South Kaweah and Mt. Langley.

III. Return trip.
   Ascent of Mt. Shasta.

GERTRUDE STREATOR

THE EVERETT MOUNTAINEERS

The organization of The Everett Mountaineers by a few enthusiasts, not quite three years ago, was a good deal of an experiment. At that time there was no provision in the by-laws of The Mountaineers for local auxiliaries, and our organization was merely a tentative one.

The membership in Everett under these rather unsatisfactory conditions, grew steadily, local walks were held regularly, and several entertainments given, until June, 1911, when the new constitution and by-laws were passed, in which provision was made for the organization of local auxiliaries. Since that time we have made good progress and now have sixty members in good standing. During the past three months there has been more interest shown in the work of the club than ever before.

In the past years we have given four stereopticon lectures with mountain views, the last three of them being in the auditorium of the High School, with free admission to the public, three or four hundred people attending each of them. We consider this good educational work. We have also held two social evenings with programs in the houses of members.

The local walks held during the year have numbered twenty-two, five of these being joint walks with the Seattle club. The average attendance on these walks has been twenty, with a maximum of forty-nine and a minimum of five. No walk has ever been given up since the organization of the club.

A very successful, as well as an extremely strenuous, short outing, in which the ascent of West Index was successfully made, was conducted May 31st to June 2nd. In this we were joined by several members of the Seattle club. A full account of the trip by Mr. Charles S. Gleason was printed in the June Bulletin.

The Everett Mountaineers have been pleased to see their example followed by the formation of a strong local auxiliary in Tacoma, and look forward to still further extension of the work in the State.

H. B. HINMAN, Chairman.

SECRETARY'S REPORT

The Mountaineers have found the past year a very busy one. Much more work has been done than heretofore in looking up the possibilities and advantages of different districts for summer outings. This has been done not only by personal investigation, but by a great deal of correspondence. Besides this work and in addition to the many less important activities of the club, was the extensive work in connection with the proposed national park in the Olympics. This required a great deal of correspondence. We enlisted the support of individuals and organizations all over the country and though Congress did not take any action, our work was not wasted for the question will certainly come up sooner or later. Replies received to our letters, show a wide and favorable interest in the bill introduced by Congressman Humphrey. The club is chiefly concerned in preventing any hasty action. While we believe mining rights should be granted, they should be absolutely legitimate and not merely a cloak for the acquisition of timber and water-power sites. The matter of boundaries should also receive very careful consideration. We believe that by a careful survey of the district the lines may be so extended in certain parts and drawn in in others, as to allow for all legitimate agricultural development and at the same time provide winter feeding grounds for the elk. The disgraceful conditions prevailing in the Yellowstone, as regards these animals, must not be repeated here.

In regard to future outings, much reconnaissance work has been done, chiefly in the Olympics. One party, leaving Sol Duc Hot Springs, carrying all supplies on their backs, spent sixteen days in exploring the north and west sides of Mt. Olympus, a practically unexplored region. They found splendid glaciers, snow-fields, and sublime scenery, but concluded that the cost of building trails and of getting a large party into the country would be prohibitive as regards an outing there in the immediate future. Another party explored the Lake Quenilt region

and the head-waters of the Queets, and still another the Mt. Stewart country, in the Cascades. All have their individual merits and difficulties.

A new feature this year was the appointment by the Board of a committee to make a collection of photographs which would illustrate, consecutively, the different outings of the club—the scenery and some important or interesting features. Also the collection of lantern slides, covering the same outings, was enlarged and, in so far as possible, all gaps filled.

In response to an invitation from Secretary of the Interior Fisher, the club appointed Mr. Wm. H. Gorham and Mr. E. T. Parsons to represent it at the conference of National Park Superintendents in the Yosemite National Park in September. Mr. Gorham reported that the conference was a great success through the useful and helpful exchange of ideas and experiences. The report was published in full in the Bulletin.

The club had the pleasure of entertaining Miss Dora Keen on her way to Alaska and Mt. Blackburn and also on her return from her strenuous expedition, when a banquet was tendered Miss Keen, Prof. Parker, Mr. Belmore Brown, and Mr. Merle LaVoy, the latter members of Prof. Parker's party in his assault on Mt. McKinley. Our guests entertained us with a most interesting and vivid account of their experiences, much to the pleasure of those present.

The Mountaineers continue to grow with the lusty vigor of youth and a good constitution, though the Board of Directors are considering some changes to be offered the club in regard to the latter. The membership, including applications to November 1, has increased during the year from 376 to 457, certainly a creditable showing. The Everett auxiliary, under its enthusiastic leader, has increased its membership to fifty-seven. During the year they have enjoyed many outings and entertainments. The Tacoma auxiliary, under the able management of Mr. A. H. Denman, has also experienced a most satisfactory season.

For the future, the prospects of the club are very bright and its activities will doubtless continue to expand. In fact, an institution that can so successfully call on its members for the very large amount of hard, unselfish work necessary to manage the local walks, outings, publications, and other undertakings, is bound to succeed.

CHARLES M. FARRER, Secretary.

TREASURER'S REPORT 1911-1912

Receipts

Balance in Seattle National Bank, Oct. 30, 1911	$ 245.83	
Financial Secretary	1,334.99	
Local walks	265.18	
Advertising in Bulletin and Prospectus	144.50	
Advertising in Annual	154.24	
Interest	86.07	
Loans	160.00	
Sale of Annuals	11.50	
		$2,402.31

Expenditures

Prospectus and Bulletin	$ 214.17	
Mailing and Addressing	61.75	
Expended by Historian	17.82	
Expended by Treasurer	19.40	
Annual	567.75	
Slides	134.05	
Financial Secretary (salary)	137.50	
Printing and Stationery	65.50	
Refund to branches	49.00	
Bonds	211.00	
Loans	160.00	
Miscellaneous	37.40	
Outing Committee	255.00	
Outstanding check Oct. 14, 1911	5.50	
		$1,935.84

Receipts

Outing Fund

Cash in Bank of California Oct. 14, 1911	$ 207.91	
Loan returned from General fund	120.00	
Members on Outing 1912	2,328.26	
General fund	255.00	
		$2,911.17

Expenditures

Reconnaissance, 1911 and 1912, in Olympics	$ 179.30	
Loan to General fund	120.00	
Album for packer	2.30	
Phones and telegrams	7.50	
Outing 1912	2,554.35	
Re-union	15.45	
Outstanding checks Oct. 14, 1911	17.10	
		$2,896.00

Permanent Fund

Cash in Bank for Savings Oct. 14, 1911	$ 33.00	
Cash in Bank for Savings Oct. 9, 1912	193.07	

Total Cash Received

General fund	$2,402.31	
Outing fund	2,911.17	
Permanent fund, in bank 1911	33.00	
		$5,346.48

Total Cash Expended

General fund	$1,935.84	
Outing fund	2,896.00	
		4,831.84
		$ 514.64

Balance

Cash in Metropolitan Bank	$ 306.40	
Cash in Bank of California	15.17	
Cash in Bank for Savings	193.07	
Total cash on hand		$ 514.64

Respectfully submitted,

P. M. McGREGOR, Treasurer.

Additional Assets

Permanent fund owns 7% bonds	$ 200.00
General fund owns 7% bonds	1,000.00

Audited Oct. 30, 1912.

H. A. FULLER
IRVING M CLARK

Original

Seattle, Wn., Oct. 30, 1912.

The Mountaineers, Seattle, Wn.

Your Auditing Committee has compared the financial accounts of the Treasurer for 1911-1912 with the vouchers and find the comparison correct. They show:

General fund, receipts of		$2,402.31
And Expenditures of	$1,935.84	
And Transferred to Permanent fund	160.07	
	$2,095.91	
Balance	306.40	
		$2,402.31

The balance on hand of $306.40 is on deposit with the Metropolitan Bank.

Outing fund, receipts of	$2,911.17
And Expenditures of	2,896.00
Balance	$ 15.17

The balance on hand of $15.17 is on deposit with the Bank of California.

Permanent fund, receipts of	$ 193.07
And Expenditures	None
Balance	$ 193.07

The balance on hand of $193.07 is on deposit with the Bank for Savings.

Assets:

Permanent fund 7% bonds, $200.00 par value.
General fund 7% bonds, $1,000.00 par value.
These bonds are in the hands of the Treasurer.

H. A. FULLER,
IRVING M. CLARK,
Auditing Committee.

REPORT OF THE CHAIRMAN OF THE OUTING COMMITTEE

The objective point of the Summer Outing of 1912 was Summerland and Glacier Basin (El. 7,000 ft.) on the eastern and northeastern slopes of Mount Rainier. The distinguishing feature of the Outing and its most satisfactory result was the finding a way for a large party with pack train into Rainier National Park from the east. The approach

was from the upper Yakima Valley near Cle Elum up the eastern slope of the main range of the Cascades, via Manastash Ridge and Naches River, then down its western slope and into Rainier National Park on its eastern boundary. This took the party through a wild mountainous country with elevations from 3500 to 5500 feet and entirely within the Rainier National Forest. From the summit of the main range westerly to the eastern boundary of the Park, so far as available trails for pack trains were concerned, is practically an unknown country; and as to this particular part of the country neither the Supervisor of the Forest nor the Superintendent of the Park were able to give us any information on which they would wish us to rely. From the junction of the White and Frying Pan rivers in the Park, it was necessary to cut a trail up the latter river to enable the pack train to get into Summerland,—three days were spent in this work with ax, cross-cut saw and grub hoe. One-half of the mountain on the east and north from Cowlitz Park and Urania Glacier on the southeastern slope to Spray Park on the northwestern slope, was covered by the party, at elevations ranging from 5000 to 7000 feet. Summerland, Cowlitz Park, Glacier Basin, Lodii Basin, Grank Park, Spokwush Meadows or Basin, and Spray Park were visited and the Frying Pan, White, Inter-Glacier, Winthrop and Carbon glaciers were traversed.

Seven of the party with two others who met us at Glacier Basin made the summit of Mount Rainier on August 3rd.

The total mileage of the outing, en route, was one hundred and thirty-nine; the time occupied twenty-two days.

Barring the loss of two assistant cooks by desertion and one pack horse over the cliff, there were no casualties.

The return home was through the northwestern portion of the Park, via Carbon River, to Fairfax, thence by rail to Seattle.

WILLIAM H. GORHAM,
Chairman of Outing Committee.

The Local Walks Committee submits the following report for the year ending September 29, 1912:

There were 21 Sunday walks with an average of 97 people, 10 Saturday walks with an average of 39 people, and three special outings with an average of 127 people.

The largest number on any one walk during the year was 220. There was a boat chartered for twelve of the Sunday walks. On these trips there was an average of 124 people. The large attendance enabled the committee to charter boats for points which could not be reached otherwise on account of schedules and also reduced the expense per member.

Up to date a balance of $274.18 remains in the local walk fund.

G. R. HURD, Chairman.

"WHEN THE FORESTS ARE ABLAZE"

Katharine B. Judson

"A western tale having for its object the terrific fires which two or three years ago devastated a hundred thousand square miles of timberland.

"The tale is simply written, but it holds the interest and nothing more vivid than the description of the forest fire and the devastation of the little towns and the fortitude of the people can be imagined. That part certainly is written by one who knows and is a true lover of forests."—Chicago Tribune.

Miss Judson is a member of The Mountaineers and has dedicated her book to the club.

LIST OF MOUNTAINEERS ON SUMMER OUTING OF 1912

Abel, H. V.
Annesley, Inez H.
Avey, O. L.
Bailey, Winona
Barlow, Jessie C.
Belt, H. C.
Belt, Mrs. H. C.
Benedict, Anna L.
Brackett, A. H.
Brown, Elizabeth J.
Bryant, S. V.
Burroughs, Edna
Cameron, Christine
Clark, I. M.
Coleman, Linda M.
Corey, C. R.
Davidson, Lola M.
Denman, A. H.
Daniels, Joseph
Flett, J. B.
Furry, Mabel
Gleason, Chas. S.
Gorham, Kathleen
Gorham, William H.
Gorton, F. Q.
Hack, E. H.
Hazard, J. T.
Hazard, Mrs. J. T.
Hinman, H. B.
Hultin, Chas. A.
June, A. H.
Jones, N. E.
Ingraham, E. S.
Irish, Evelyn
Kidd, Jessie A.
Kratsch, Ida
Kendall, Elizabeth
Lovering, Lydia
McGregor, P. M.
Mason, Allen C.
McKay, Helen
Meany, E. S.
Otis, B. J.
Paschall, Mary R.
Pearce, Duncan
Rand, Grace
Reynolds, Carrie
Scholes, Josephine
Scholes, Emma
Schumacher, K.
Smith, T. H.
Spencer, H.
Stauber, A. H.
Teel, Ellen
Talbot, C. B.
Wood, N. P.
Van Wagerman, Ethel

INTO THE OLYMPICS

Our Seventh Annual Outing

CHAS. ALBERTSON

No official action in regard to a trip into the Olympic Mountains in 1913 has been taken by the Board of Directors, yet the consensus of opinion of the individual directors is definitely in favor of it.

Through the courtesy of the Forest Service officials, Mr. L. A. Nelson will be released from his duties in order to act as Chairman of the Outing Committee. He will lead the outing.

The summer trip as tentatively planned, extends from the Straits of San Juan de Fuca on the north clear over the rugged Olympic Peninsula to the Pacific Ocean on the south.

Up the Puget Sound and halfway out the Straits by steamer we go to Port Angeles. Then eleven miles of motor road to the Elwha River where we are again at home on the timbered trail among the mountains. For several days we follow this winding and climbing trail up the Elwha Valley to the head waters and even on over the divide (Dodwell-Rixon Pass) into the sources of the Queets River on the Pacific watershed. This is the trail of "The Mountaineers" on their first annual outing in 1907.

Main camp will probably be in the Queets Basin at about 5000 feet elevation, in full sight of Mt. Olympus, in a wonderfully beautiful natural park with scattered trees, lakes, brooklets and flowers. It is flanked on either hand by precipitous rock cliffs and glacier covered mountains and affords a long vista down the forested Queets. At least ten days will be allotted for real life in this beauty spot.

Mt. Olympus, 8250 feet, can be climbed in one day from main camp. The canyoned head waters of nearly all the important rivers of the Olympic peninsula, flowing in all directions from the mountain, are readily reached. From nearby peaks extensive yet companionable views are obtained without excessive work, while sheer canyons and ice-bound summits will test the ability of the most expert mountaineer.

On the way out we will likely camp near the sisterly lakes, Margaret and Mary, nestling in the low divide. Thereafter the little-known route follows an ancient and well-worn elk trail down the North Fork of the Queniult River, then westerly up a branch stream to the top of the rolling Queets-Queniult divide. Here for a few days above the heavy timber line in a superb park country at an average elevation of 6000 feet we camp and tramp coastward until we drop down through the timber again to the Indians' gem—Lake Queniult.

A canoe trip across the lake and down the Queniult River over thirty miles to its mouth at Tahola on the Pacific Ocean follows. The Indians are expert canoe men and the day's trip will be a delight. On the way down are small houselike Indian graves and myriads of wild fowl, while the uninhabited wooded banks give one the feeling of being in the uttermost parts of the earth.

From the Indian fishing village of Tahola we walk nine miles down the broad ocean beach to Moclips, then the train home.

Let Your Foreign Bubble Burst—Go and

SEE AMERICA FIRST

Visit Glacier National Park Next Summer

The latest of our national playgrounds. It lies in the western section of Montana, between the Great Northern Railway and the Canadian boundary line, and its 1525 square miles contain over 250 deep blue lakes of glacial origin as well as innumerable mountain streams that find their source in the 60 living glaciers and snow-capped peaks, within the borders of the park.

Here the Rocky Mountains tumble and froth like a wind-whipped tide as they careen off to the northwest of Canada and Alaska. Here is the backbone of the continent and the little and big beginning of things; here, huddled close together, are tiny streams, the span of a hand in width, that, leagues away to the north, the south and the west, flow mighty rivers into Hudson's Bay, the Gulf of Mexico and the Pacific Ocean; here peak after peak, named and unnamed, rear their saw-tooth edges to the clouds; three-score glaciers within its borders are slowly and silently grinding away at their epochal task; three hundred lakes in valley and in mountain pocket give back to the sky its blue, gray or green; half a thousand waterfalls cascade from everlasting snow in misty torrents or milk-white traceries; rainbows flicker and vanish in the everchanging play waters, while the clear Montana sun does tricks of light and shade on pine and rock. High up on some gale-swept crag the shy goat pauses for a moment and plunges from view; lower down the big horn sheep treads his sure-footed way. And all is as it was when the world's first day was done, save for some man tracks here and there on the winding slopes.

Glacier National Park has no side-shows for garrulous trippers; it has no Coney Island attractions; it has no geysers; there are other canyons as deep; other mountains as high; but those who have roamed the world with open eyes say earnestly that there is no spot where nature has so condensed her wonders and run riot with such utter abandon; where she has carved and hewn with such unrestrained fancy and scattered her jewels with so reckless a hand.

ONLY NATIONAL PARK ON MAIN LINE OF A TRANSCONTINENTAL RAILWAY

For the accommodation of tourists, the Great Northern Railway has erected a chain of seven chalet camps in the Park in addition to a magnificent hotel at Glacier Park Station (eastern entrance) and the Belton chalets, at Belton (western entrance). The accommodation at these Great Northern Hotel Colonies is uniformly good, and the rates very reasonable—$3.00 per day. American plan.

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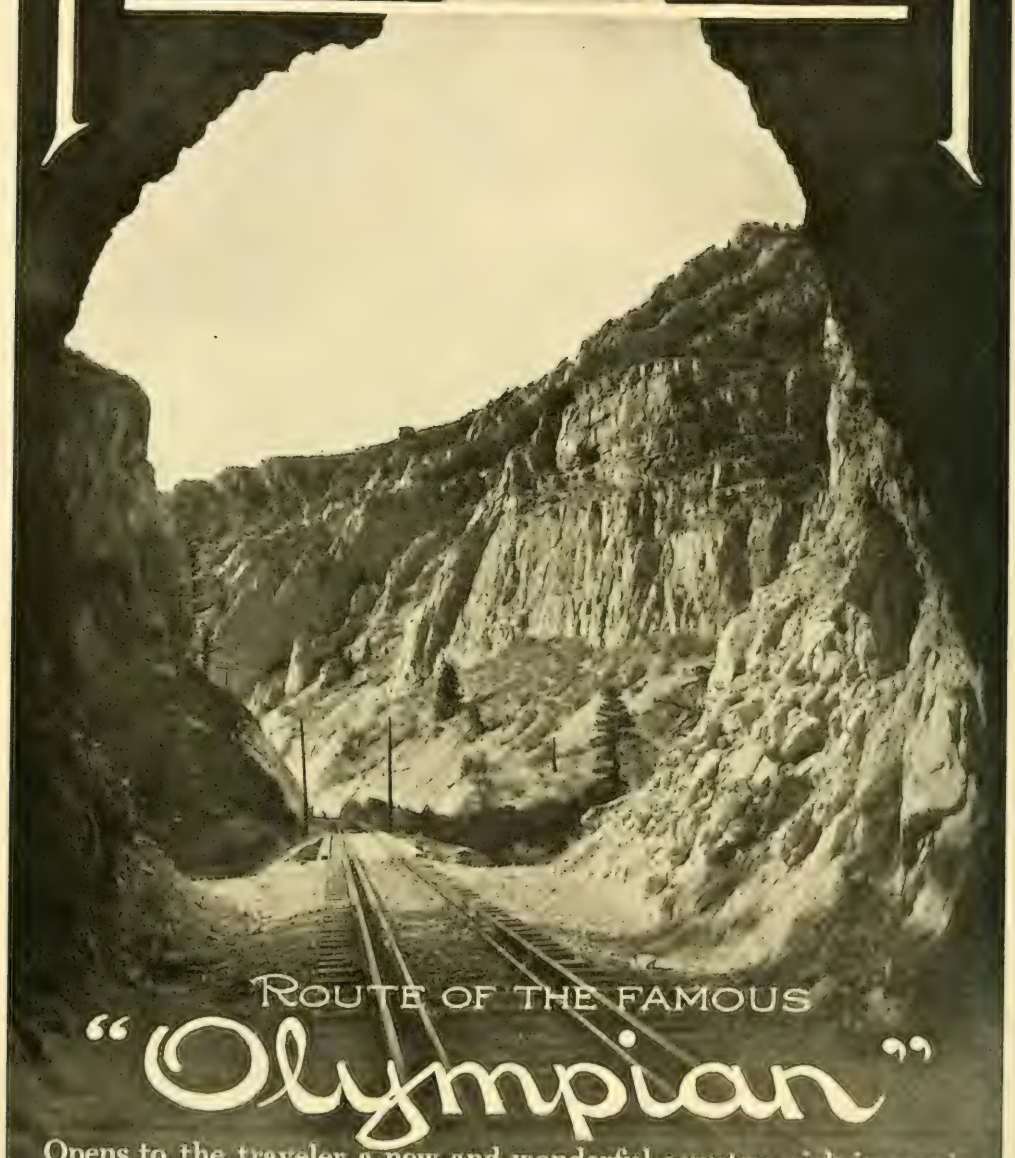

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SEATTLE, WASHINGTON

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THE MOUNTAINEER

SECOND OLYMPIC NUMBER

VOLUME VI · 1913

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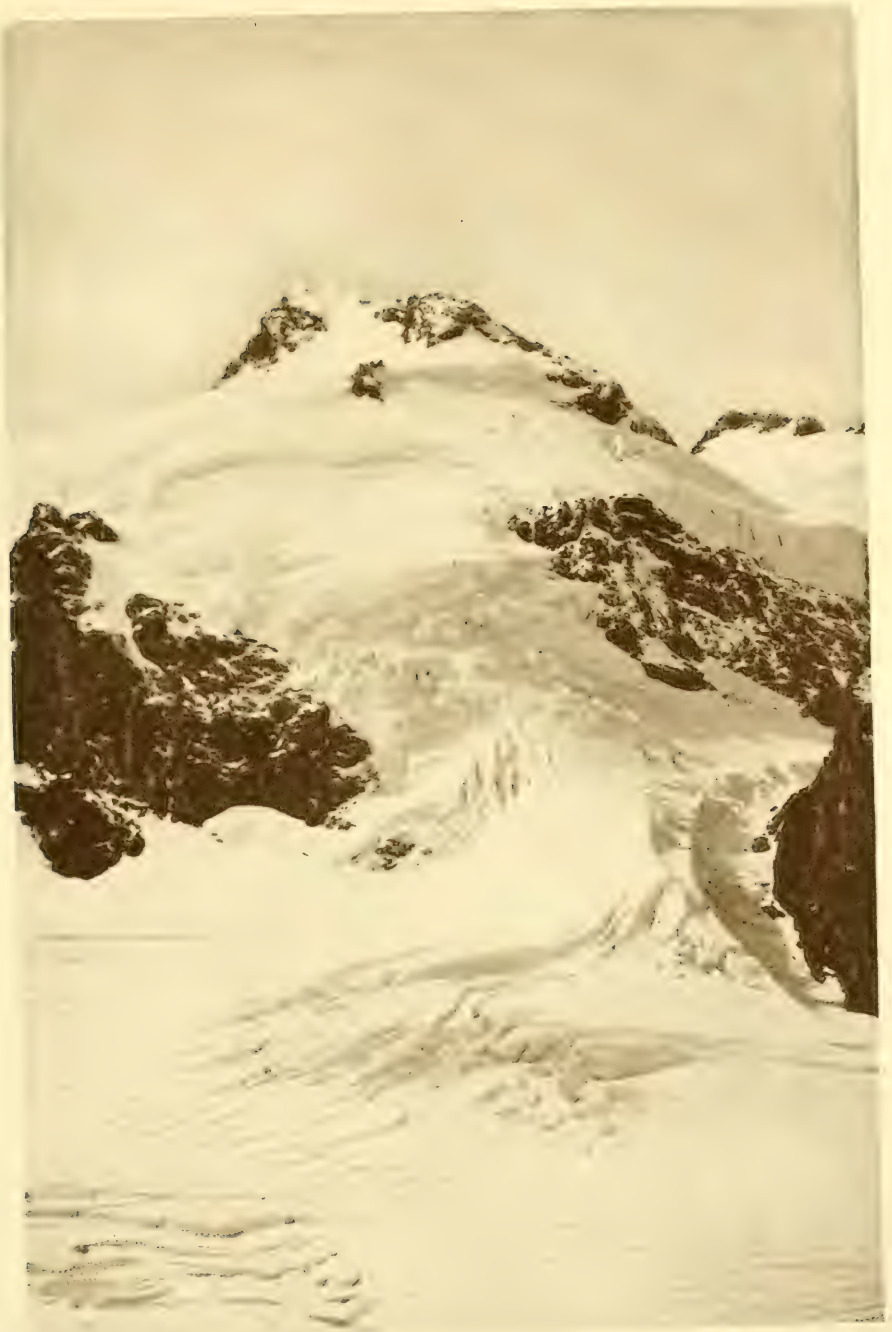
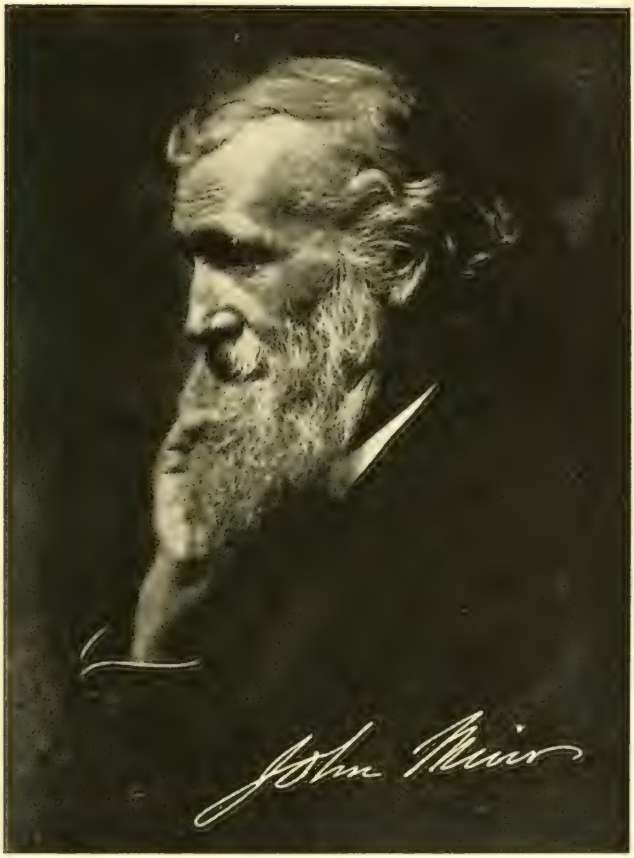


Chas. Albertson

MT. OLYMPUS
FROM
BLIZZARD PASS

Mt. Olympus has three peaks, East Peak, Middle Peak and West Peak. The elevation of the highest peak is about 8,200 feet. The high point in the photograph is East Peak, about two miles distant. This was climbed by 67 Mountaineers August 11, 1913. In the lower foreground is the Hoh Glacier, with the westerly lobe cascading into it. The far end of the right-hand ridge is the West Peak. The route taken was to the left on the Hoh and then to the right on the skyline to the summit.



JOHN MUIR

PRESIDENT OF THE SIERRA CLUB, WHO IS LEADING THE GREAT FIGHT FOR THE PRESERVATION OF THE HETCH HETCHY VALLEY

A BIT OF SEA *A. H. A.*

Greetings:

From

Ernest Lister

Governor of the
State of Washington

Greeting:

My greetings to the men and the women whose hearts respond to the rush of the river and the swirl of the brook, to the celestial symphony of earth and sea and sky — the Mountaineers.

Sincerely yours
Ernest Lister.

The Mountaineer

Volume Six Seattle, Washington Nineteen Thirteen

THE OLYMPIC NATIONAL FOREST— WHAT IT MEANS

R. L. FROMME, FOREST SUPERVISOR

IN the extreme northwestern corner of the United States, surrounded on three sides—west, north, and east—by water, is the Olympic Peninsula, the mountainous and heavily timbered interior of which has been set aside through the wisdom of the National Government as the Olympic National Forest. This area was withdrawn from all forms of private acquisition, excepting as permitted under the mining laws and the special homestead act of June 11, 1906, which applies to lands more valuable for agricultural use than for timber, public use, water-power, and other forest purposes, by President Cleveland on February 22, 1897.

For the first few years, this reserve, as it was then called, was, like most of the other early created forests, handled as a reserve pure and simple, very little study or regard being given to the local business interests or to the wisest use of the lands and resources involved. Beginning with the spring of 1905, however, when the administration of this, along with an aggregate of some 37,000,000 acres of similar timber land withdrawals, was turned over by Congress to the Forest Service, Department of Agriculture, consistent progress has been made in the practical application of the idea of conservation. The Forest Service, at that time a small group of technically trained men, who, with a knowledge of European methods of forestry, were engaged in studying home conditions with a view to a proper scientific application of those principles to the forests and timber lands of this country, was naturally better fitted than any other branch or division of the Government to assume control of these "reserves" and to introduce rapidly the idea of the greatest use to the largest number. With the application of this idea of wise use of the national timber resources, it was but a short time until the very inappropriate and misleading term of "reserve" was dropped for the adoption of the name national forest, which means development and use just as rapidly as local conditions and needs permit and justify, and in such a manner as to prevent waste, attain the greatest benefit for all the people, and make such benefits just as far as possible perpetual.

The Olympic National Forest is now and will for all time to come be of greatest benefit to the people of this country, and particularly of the local communities, in the production of commercial timber. Just now, because of the inaccessibility of the vast majority of this timber as compared with large holdings of private timber on bordering lands nearer tidewater, there is not nearly the activity that there will be in the near future, and we are not realizing the benefits which the natural current production warrants. A rough extensive reconnaissance of the timber resources on this National Forest furnishes an estimate of practically 32,600,000,000 feet board measure of merchantable timber (hemlock 39%, Douglas fir 31%, Amabilis and other true firs 16%, cedar 7%, and spruce 7%) all but six hundred or seven hundred million feet of which is considered as within the commercial—now or eventually loggable—forest area. This timber is largely mature and overmature, the estimate of this class aggregating 29,000,000,000 feet board measure, so that there is not at present the amount of annual increment, or growth, which we can expect after it becomes economically possible to dispose of the larger percentage of the old stands, and to apply more closely true silvicultural principles in our forest management. It is believed that we can safely figure on eventually obtaining an annual growth of at least 300,000,000 feet board measure in the commercial timber area on this forest, which, with the large amount of present mature timber, warrants us in encouraging, just as fast as economic conditions permit, the sale, under proper regulations for reforestation or continued forest production, of sufficient timber to make an average annual cut over short periods of years of between 250,000,000 and 300,000,00 board feet.

Even now the timber sale business on the Olympic National Forest is sufficiently under way to assure the execution of several contracts this winter for the cutting, during periods of from one to seven years, of better than 300,000,000 million feet, or an average for the next several years of at least 50,000,000 feet per annum. At the present annual stumpage price of $1.75 per thousand feet, an annual revenue of $87,500 from this source appears certain, 35% of which, or $30,625, will be returned from the United States Treasury for school and road purposes within the counties affected by this forest withdrawal—Clallam, Jefferson, Chehalis, and Mason. With the eventual annual cutting of at least 300,000,000 feet of timber and lightly increased stumpage prices, the financial feature of the present scientific Forest Service policy will become much better appreciated. The assured average annual revenue for the next four or five years in this one forest is already more than three times the total cost of administration, which includes all the work of fire and other forest protection, experimental planting, the administration of the Act of June 11, 1906, the granting of free use of timber to local settlers, the special use business, timber

Chas. S. Gleason

VISTA OF
MT. SEATTLE

View taken from above the north side of the Elwha Basin, showing a delightful bit of forest scenery.

A. H. Denman

MT. OLYMPUS FROM THE KNIFE-EDGE TRAIL

Mt. Olympus to the north about twenty miles distant. Looking across a sea of virgin, evergreen forest on the sloping headwaters of Chileechee creek, which empties into the Queets river. From the Knife-edge trail.

sales, and in fact all the activities of the present forest force—25 to 30 field men during the summer months—including the expenditure of a special fund of $5,200 for trail, telephone line, pasture fence, and cabin construction.

The above brief statement of the timber resources of the Olympic National Forest and what can be expected in the way of perpetual production of this product commercially, makes at once apparent the wisdom from a purely financial point of view of national control and administration of this million and a half acres of mountainous timber land. But there are numerous other considerations.

The best available statistics show a per capita consumption of 260 cubic feet of wood in this country (37 and 25 cubic feet, respectively, in Germany and France), or an annual cutting from our forests of three and one third times the annual growth. This does not include the annual loss by forest fires. Another value than the purely financial consideration in the present National Forest policy is therefore easily evident, and the Olympic which today contains practically one-eighteenth of all the timber on the 160 national forests in the United States proper will prove of particularly prominent assistance to the future generations.

In addition to the financial and perpetuation considerations, all timbered areas in mountainous regions exert a very appreciable control on the flood tendencies of rivers and creeks, and on the erosive or soil wash action of rains on steep slopes. Particularly is this true

of a rough mountainous region in a locality of heavy rain, for which the Olympic Peninsula is especially noted, and, within the boundaries of the National Forest, which totals 1,538,000 acres, or 2400 square miles, of unalienated land, 375,000 acres is classed as alpine and non-commercial forest, into which cutting will never be permitted because of its greater value for purely watershed protection purposes. Limited tracts, even in the commercial forest area, will develop as business and community interests increase, to have special values as sources of municipal water supply, justifying special considerations in the timber sale policy.

Somewhat apart from the forest cover itself, is the rapidly increasing importance of water-power sites. The Olympic National Forest, on account of its particularly heavy rainfall—heaviest in the United States—its unusually large number of streams, and its prominently steep slopes, is especially rich in this resource, and the continuation of the present forest policy will mean in the not very distant future the development of a vast amount of commercial water-power under a non-monopolistic leasing system, whereby the benefits will be shared by all the people. For, with water-power, as in the case of National Forest timber, true conservation means use under a carefully drawn contract, which tends to bring about the highest development in the shortest practicable time and guarantees a commensurate revenue to the Government.

The special use business on any national forest arises from the fact that all lands have for some natural or artificial reason greater value along some one line than any other, and in order to encourage this—the highest use—special permits are issued. On the Olympic, there are now nearly 100 such permits in effect, most of which are for lots for summer residence purposes on the shores of Lakes Crescent and Quenialt, for which a small annual charge averaging $10 is made. Other special use permits cover hotels, sawmills, pastures, ditches, pipe-lines, telephone lines, schools, etc., some of which are issued free. With the improvement of roads, trails, and other transportation facilities, the special use business on this forest, because of the great variety of interesting scenic features and many possible activities, is certain to grow to large proportions, and the present policy encourages this.

The grazing business is of but very minor importance, due to a lack of favorable range within easy access, and but a small amount of tree planting on extensive burns is necessary here. The alpine areas, which include the only grass land on the forest, constitute about 20% of the total acreage, but they are at such high elevations, 3500 to 6000 feet, as to make them suitable for livestock only two or three months in the summer. Burns constitute only 4% of the total area

THE QUEETS VALLEY
AND
MT. OLYMPUS

A. H. Denman

Looking north from the Knife-edge trail on the Queets-Queniult divide to the bulk and southerly bulwarks of Mt. Olympus. Shows one of the marvelous timbered valleys with which the Olympic Peninsula is covered.

within the forest; unproductive or barren lands, such as the high mountain regions of glaciers and perpetual snow in the Mount Olympus region, and many high, sharp ridges which cap the steep eastern slopes, amount to about 16%; and the remaining 60% is productive timber land. Young growth, or immature timber, amounts only to about 5% in the productive timber acreage.

As another phase of forest business, but one which does not enter into the final plan of forest management, the classification for homestead entry of those lands chiefly valuable for agricultural use deserves mention. Close to 9000 acres of such land scattered along a few of the narrow river and creek valleys on the north and east slopes, but principally in the Queniult lake and Queets river region of the southwest, have already been listed and a few hundred acres more will likely follow in the next several years. Agricultural land now covered with commercial timber is not subject to listing until it becomes practicable for the Government to dispose of the timber, for it is only in this way that the entry of lands, under the guise of farming, for timber speculation and eventual control by large timber-holding companies, can be thwarted. However, as the timber on such lands becomes saleable, it will be clear-cut and the area for agricultural settlement increased accordingly, thus again bearing out the true principle of conservation. Mining, too, is encouraged, and is governed by exactly the same laws on national forest lands as on the government lands outside.

Thus far, consideration in this article has been confined to the more concrete or business values of the Olympic National Forest, either as now in actual realization or as eventually assured. As a related feature, however, in this same subject of valuation, although not measurable in dollars and cents, this forest has, due to its unique location, its beautiful lakes and wealth of fascinating rivers, its great abundance of unusual scenic features, and several medical hot springs, its many high rugged mountain peaks and ridges, regions of perpetual snow and glaciers, its wild and highly interesting alpine park areas, and its wealth of birds and wild game—including some 2,500 Olympic elk—a value for public recreation purposes entirely beyond calculation. Being within easy access from Puget Sound points on the east, Gray's Harbor on the south, and Victoria on the north, it ranks unusually high as a vast public summer playground, and as road, trail, and telephone line construction progresses, opening up new territory, this interest will naturally greatly augment. From the very irregular central mass of mountains, culminating toward the northwest in Mt. Olympus, about 8,200 feet in altitude, the many streams radiate in every direction, pouring their turbulent waters into the Pacific, the Straits of Juan de Fuca, and Hood Canal. This

peculiar "cross country" topography, essentially abrupt and steep slopes at medium altitudes, numerous, although generally narrow and disconnected park-like areas in the high alpine and timber-line situations, and—particularly on the longer south and west slopes—the heaviest stands of large timber in the United States, aside from limited patches of redwood in California, furnish a rare and wholly unique treat to the hardy mountain explorer as well as to the lover of dense stands of massive, bottom-land timber.

GRAY FLAGS OF THE HILLS

EDMOND S. MEANY

Olympics, Olympics, moist home of the mists,
How sure do thy signals, thy flags on the hills,
Call troops of cloud soldiers through tortuous twists
To plunge where a trumpet each cataract thrills.
Each cataract thrills,
Thy thousand new rills,
Wild trumpets of rivers,—
Gray flags of the hills!

Olympics, Olympics, thy fortress of fir,
Thy cavernous hemlocks where world clamor stills,
Where never an elk hears the arrow's weird whirr,
A wilderness peace till the fierce cougar kills.
The fierce cougar kills,
His blood lust fulfills,
Thy shroud for the timid,—
Gray flags of the hills!

Olympics, Olympics, thy swift waters run
To grind the huge boulders in rough granite mills,
A smile at the labor, a kiss from the sun,
They dance as they whirl their rude hammers and drills.
Rude hammers or drills,
As glad worker wills;
Thy rivers are laughing,—
Gray flags of the hills.

THE OLYMPIC OUTING—1913

GERTRUDE STREATOR

ONE hundred and two members of the seventh annual outing of the Mountaineers left Colman Dock, Seattle, Washington, on the steamer Sol Duc, at two o'clock, Saturday morning, August 2, 1913.

Friday evening the dock was the scene of great excitement as one Mountaineer after another hurried up to the group that was awaiting the first signal of the whistle—the signal to go on board the boat. There were the merry hum of voices, the click of alpenstocks or ice axes, and many questions. "How much does your dunnage weigh?" was the eternal question and likewise the accepted mode of salutation. The signal was sounded; the many friends who had assembled to wish us God-speed turned away; all retired except the committee who awaited the coming of belated members.

Port Angeles, where breakfast was served, was reached at about seven o'clock, August second. Through the kindness of the Commercial Club of Port Angeles, automobiles were provided to convey the Mountaineers ten miles along the country road to the bridge which spans the Elwha River. At this point an excellent trail begins which follows the east bank of the river, leading through beautiful forests up to the Elwha Basin. After a tramp of ten miles along this trail, the happy Mountaineers established their first camp at Humes' Ranch.

Our first camp-fire was opened by the president, Professor Meany, reading Chapman's beautiful poem—

OUT WHERE THE WEST BEGINS

"Out where the skies are a trifle bluer,
Out where the friendship's a little truer,
That's where the West begins;
Where there's life in every breeze that's blowing,
Where there's laughter in every streamlet flowing,
Where there's more of reaping and less of sowing—
There's where the West begins."

And well may the Olympics be called "Out where the West begins."

The camp-fire brings the Mountaineers together and unites them into one great circle, so after the first evening spent around the fire singing, listening to the history of the great country we were entering, then hearing the announcements for the next day, and at last to hear, "Rising call at five forty-five. Breakfast at six-thirty,"

it indeed seemed that we were a united circle. The feeling of expectation of a company of nature lovers standing on the threshold of a great expedition cannot be expressed in words.

Sunday, August third, was a day of rest, although it was not officially so named. Eight and a half miles along the Elwha River through the virgin forest brought us to Elkhorn, which was our second camp. The pack-train was somewhat delayed, but that only helped add to the pleasure of the good dinner which followed the arrival of the commissary.

At camp-fire we were told of the nature lovers of all ages beginning with the Greeks and Romans, down to the Mountaineers, who show their devotion to nature by their pilgrimage to the mountains.

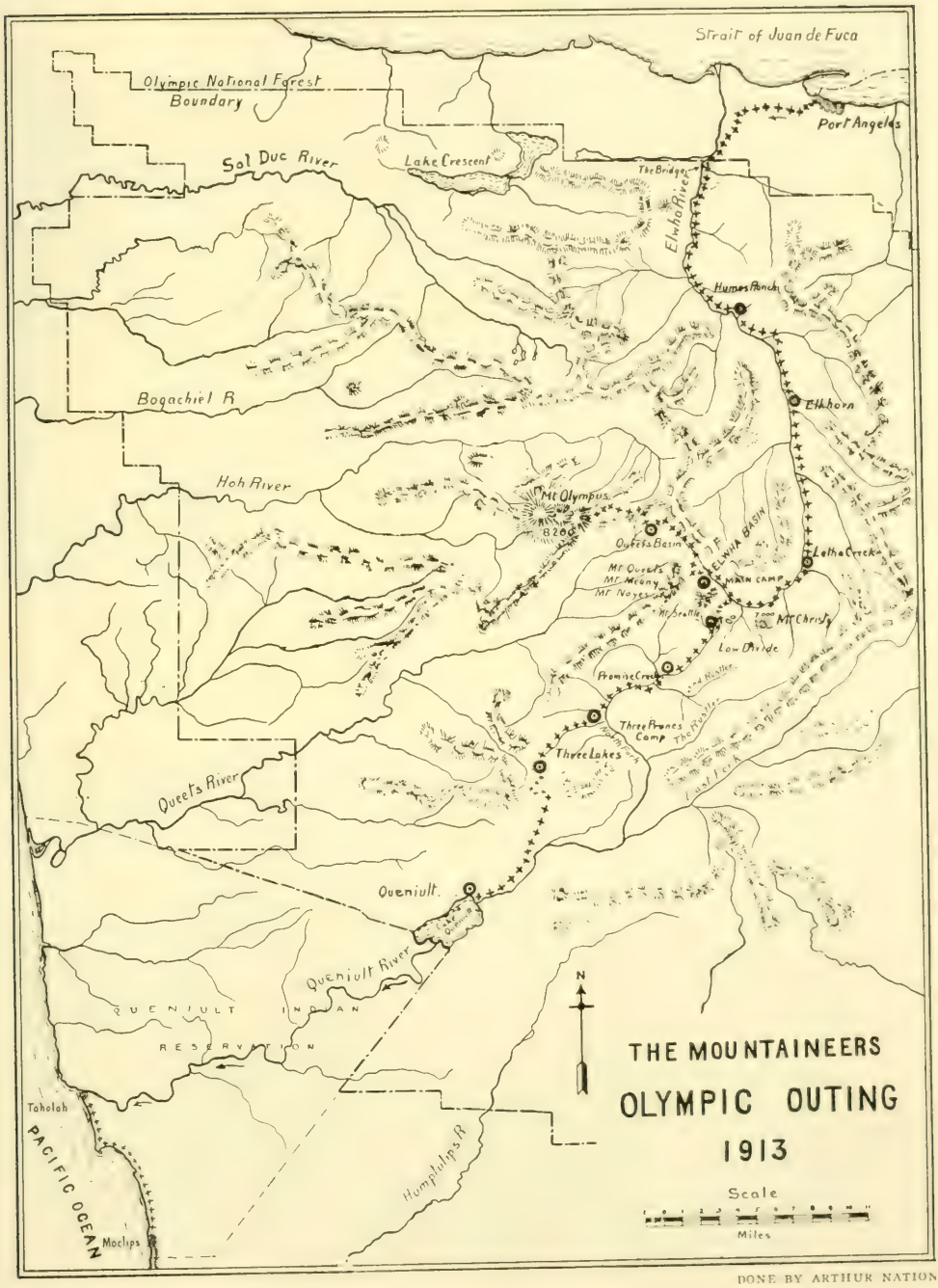
Camp Three, at Letha Creek, was reached after a walk along the Elwha through a forest of cedars, hemlocks, white firs, Douglas firs, and white pines. Every one was thoroughly imbued with the spirit of the trail. Letha Creek camp was made memorable by the arrival of Charles Albertson, who had been making a final inspection of the trail, having entered from the Queniult side. The Outing Committee, L. A. Nelson, Charles Albertson, and George E. Wright, being together, our company was now complete.

On August fifth, company formation was necessary as the Elwha River was crossed on foot logs three times within two and a half miles after leaving Letha Creek. The life line was stretched across the river to be used as a hand-rail by those who were unaccustomed to crossing mountain rivers on swaying logs. After the last log was safely crossed little groups of people loitered along the trail, others stopped to fish, while some hurried on into camp. Arriving in the Elwha Basin we were surprised to see the site of the 1907 Mountaineer camp buried beneath the snow. Camp was established just north of the old site, but as the little creek which furnished water for commissary failed as soon as the sun went down, it was decided that we should move lower down the next day.

The following morning was devoted to settling permanent camp (altitude 2590). The women occupied the beautiful grove between the creek and Elwha River; the commissary, the south bank of the creek; the men retained their position near the 1907 camp; the married people took possession of the hillside.

After lunch L. A. Nelson conducted a party of seventy-nine on a try-out trip across the snow field up to the glacier just below Mount Seattle. Every one was delighted with the snow work and was eager to have a real trip. There was not long to wait for this, as the next morning an opportunity was given to sign up for the climb of one of the peaks of the Seattle group.

The ensuing morning found a long line of eighty-four Mountaineers impatiently awaiting the sound of the whistle which came at last



DONE BY ARTHUR NATION

and the companies moved off on what was thought to be another try-out, but the seventy-nine who signed the record* at the summit (altitude 7,100 feet) declared that it was a real trip. The remaining five stopped about one hundred feet below the summit.

The descent was slow on account of the danger of starting loose rocks, but as every one moved carefully not a rock was dislodged. One of the experienced members was heard to remark, "This is a first-class climb, but not a try-out." A new member's version of the trip was, "I see now what the Mountaineers try to do. They try to see how high they can get without falling off."

Allen C. Mason conducted an Oriental camp-fire at which each member of the party received some message from the gods; in the meantime colored lights played over the snow, illuminating the dark forest behind us.

On Friday a large company visited the Dodwell-Rixon Pass which overlooks Mount Olympus and the Queets Basin—the promised land. A side trip was made by the "botany bunch" to the foot of Mount Queets, where two falls, though still encased in snow caves, nevertheless leaped down over the high rocky walls and dashed on through their long ice tunnels. At camp-fire we were entertained by Professor Meany relating Indian myths and legends in connection with the history of the Olympics, after which Mr. Kingsbury told Klickitat Indian stories.

Saturday was observed as a day of rest and preparation for the climb of Mount Olympus. L. A. Nelson and P. M. McGregor went to plan the route of ascent, while Messrs. Hack, Hazlehurst, Pearce, Bryant, Allen, and Ernst took two hundred and twenty-five pounds of commissary over to temporary camp in order to make the trip easier the following day.

At eleven o'clock the Rev. Hugh Brown, standing in a bandanna-draped pulpit, gave an impressive nature sermon. Professor Meany presented two of his volumes of poems, "A mountain camp-fire" and "Mountain camp fires," to the club. A little library was arranged for the use of all, which proved very successful and added to the pleasure of those who remained in camp.

After appropriate ceremonies at camp-fire, Miss Elizabeth Wright carefully raised Old Glory. This flag was later presented to the Mountaineers by Mr. Allen Mason of Tacoma. Mr. Parsons, one of the charter members of the Mountaineers and also a visiting member from the Sierra Club, occupied the remaining part of the evening telling stories of the work of the Sierras. He made interesting comparisons of the mountain clubs, showing the strong as well as the weak points of both.

* The names of the various mountains and the records of those who climbed will appear at the end of this magazine.

Chas. Alberts, n

MOUNTAINEERS IN LINE ON THE ELWHA SNOW FINGER. NELSON ROCK IS JUST ABOVE THE HEAD OF THE LINE AND THE GAP AT THE TOP IS DODWELL-EIXON PASS, ELEVATION 5,300 FT.

R. L. Glisan

MOUNTAINEERS IN THE LINE ZIGZAGGING UP THE STEEP SLOPE OF MARION GORGE ON A TRYOUT TRIP. THE CLIMBERS WERE IN SIGHT OF THOSE REMAINING IN MAIN CAMP

August tenth. Eighty-four Mountaineers eager for the climb of Mount Olympus shouldered their sleeping bags for the trip across the Dodwell-Rixon Pass over into the Queets Basin.*

About three o'clock in the afternoon of the day of the climb, the heavens put on a gray, somber look; big rain drops splashed down; everything seemed to be preparing for a storm. The heavy crash and rumble of an avalanche added to the seriousness of the mood which nature had assumed. Yet nothing daunted the sixty-seven victors who had reached the summit of Mount Olympus, marched triumphantly into camp at about half-past four o'clock, and found that Tom had a splendid dinner all ready for them.

There was no delay when the rising call came the next morning. Dunnage was packed and every one ready at eight o'clock. The mist and fog hung heavy and cold, but the packs were picked up with a will when the roll call summoned each to fall in line for the trip back to Elwha Basin. The march was continuous until we reached Dodwell-Rixon Pass, where a halt was made; before us lay the Elwha Basin bathed in sunshine, back of us the Queet Basin, shrouded in a heavy gray pall. We hurried on, arriving in permanent camp at eleven o'clock, where a hearty welcome awaited us.

The forest supervisor, R. L. Fromme, and his wife, joined the party in Elwha Basin. Our camp-fire that night was truly a reunion. Mr. Sayward of Boston, visiting member from the Appalachian Mountain Club, told of the work which that club has accomplished. Then Mr. Glisan, a charter member of the Mazamas, gave the history of the Mazamas, and also told of the close affiliation between the Mazamas and the Mountaineers.

On Wednesday morning, August thirteenth, twenty signed for the climb of Mount Meany under the leadership of Mr. Nelson; twenty-one signed for the climb of Mount Barnes, with Mr. Allen as leader. The Mount Meany people returned at four, the Mount Barnes shortly after; thus two more summits were conquered in a single day.

Those who remained in camp enjoyed the opportunity of drying their dunnage, reading, or exploring the hills and forests around the Basin. Rain late in the afternoon made it necessary to put up shelter tents to be used at camp-fire. Great originality was developed, or rather revealed, in limericks or other verse presented that evening. The selection every one remembered best was:

"Eany, Meany, miney, mo,
Catch a crevice with your toe,
Nelson whistles.
Up you go,
Eany, Meany, miney, mo."

* Mrs. Parsons' account of the ascent of Olympus gives a graphic description of the conquest of Mount Olympus, 1913.

The following resolution was proposed:

"Be it resolved that the Board of Directors of the Mountaineers be requested to investigate the matter of the construction of club lodges and mountain shelters with the view to the erection of such as seem most immediately useful, at the earliest opportunity, and of such others in the future as the club may be able to maintain."

The resolution was unanimously adopted.

The following resolution was also presented:

"Whereas, the members of the 1913 outing of the Mountaineers have been honored by the presence of one* of the most prominent of the women mountaineers of the west; and, whereas, we wish to show in a measure our appreciation of her sterling qualities and her long and honorable career in the great out-of-doors;

"Therefore be it resolved by the members of this outing, with the sanction of the Outing Committee, that we commemorate her and her visit with us by naming the chief vista of our main camp in her honor as 'Marion Gorge and Pass,' and be it further resolved that we spread these resolutions on the minutes of our organization by and with the consent of the Board of Directors."

The resolution was unanimously adopted.

Thursday, August fourteenth. After breaking camp in the Elwha Basin, we retraced our steps along the Elwha River trail to "the sign of the turtle"; turned south on the excellent new trail which was constructed by Grant Humes for the Mountaineers; and arrived in Low Divide camp about one o'clock. Although it rained, every one was well sheltered as each had taken his tent or fly and had it pitched long before the pack train appeared, as the horses, objecting to servitude after their rest and freedom at permanent camp, had given the packers a hard chase before they allowed themselves to be caught and saddled.

Two beautiful little lakes, Martha and Margaret, named in honor of the wives of Dodwell and Rixon, were found in the valley at Low Divide. The water-lily pads in Lake Margaret afforded an excellent example of the result of seed distribution by birds, as the natural habitat of water lilies is much lower.

A portion of the old wickey-up used in 1907 by the Mountaineers marked the site of the camp established in 1913, therefore it was with a feeling of returning home that we settled down in the old camp for two days.

Shortly after breakfast on August fifteenth the line formed for the ascent of Mount Christy under the directorship of Grant Humes. We scrambled through wet brush, then up into beautiful Martin Park, where we had lunch near a small stream, after which fifty-four continued the trip toward the summit, while the others decided to take pictures, explore the park, and then return to camp.

* Mrs. Marion Parsons.

LAKE QUENIULT
IN THE DISTANCE

Looking southwesterly from the Knife-edge trail on the Queets-Queniult divide. *C. G. Morrison*

Mount Christy was a delightful climb over long snow fields, up over Christy glacier with its interesting formation, moraines, and deep crevasses, then up a sharp rocky slope to the summit, where we found and opened the record box which contained the signatures of those who made the ascent in 1907, as well as those of Doctor Landes and his brother who climbed later. After adding our names and trying to locate various peaks in spite of the clouds which seemed determined to shut them from our view, we began our descent. On the trip down the long snow fields lent themselves to sliding or glissading. It is quite remarkable to see the originality this sport develops in the individual members, not only in the method of descent, but also in poetic genius, as the camp-fire songs gave proof.

August sixteenth, five men, with Mr. Pugsley acting as captain, climbed another peak of the Seattle group. A small company made a side trip to Marmot Pass which overlooked our forsaken camp in Elwha Basin. The majority of the Mountaineers remained in camp, where the rain did not hinder merrymaking, or the making of verses. Herbert Olson returned from the new trail and told of the work which had been completed.

Sunday morning Low Divide Camp was added to the list of memories, as we followed the new trail to Camp Albertson at the junction of Promise Creek and the North Fork of the Queniult River. At this place an interesting record was found carved on one of the trees—"Two days from Mount Olympus, Bunch, Aug. 2." It called to mind the two men who visited the Mountaineers' camp in Elwha Basin in 1907. They had hoped to climb Mount Olympus, but after getting information concerning the trail, the distance, and the time it would require to make the trip, did not attempt it.

August eighteenth. As the North Fork of the Queniult River was to be crossed five times within three and a half miles, line formation was kept until noon. After lunch the company was divided into two sections with Mr. Albertson in command of the first, while Mr. Wright had charge of the second division, which included the pack-train. The first company arrived in camp in good time, but the second was less fortunate, as it was necessary to unpack the horses, carry the dunnage down and up the 500-foot canyon, then lead the horses over the same steep, slippery trails. This was the most laborious part of the entire trip. Only eight horses reached camp before dark, the others were compelled to remain along the trail wherever night overtook them.

The splendid spirit of the 1913 outing was at no time so manifest as on this occasion, when every one helped and did his utmost to assist in making others comfortable.

The next morning was bright and sunny, especially when the men and horses arrived. They did not all come at once, but each

was heralded with cheers as he emerged from the forest, crossed the river, and came into camp. A wonderful breakfast was served—not to the men who had brought the commissary—but to those who had spent the night in Three Prune Camp.

The day was announced as a day of rest, but judging from the laundering, packing, unpacking, and rearranging, it might well have been called Labor Day. Some of the activities were, as developed later, preparatory to the wedding(?), and the vaudeville which was given under the management of Mr. Montague, a visiting member from the Mazamas.

August twentieth found the Mountaineers again on the new trail which was scarcely finished before we were passing over it. Those who helped construct the trail certainly deserve the highest praise, as it was through their efforts that the trip was made possible. Our new trail joined the miners' old trail which led up to a beautiful flowery alpine meadow, where the heather was again greeted as an old friend. As an elevation of 2,500 feet had been gained during the forenoon, a two hours' halt was made in order to allow the horses to rest and feed. We followed the Knife Edge trail on the crest of the divide between the Queets and the Queniult valleys, often turning to look back at Mount Olympus lifting its triumphant summits into the azure of the sky, while nestling close on its sides lay the long, glistening snow fields. We turned many times for a last view of Olympus and then "another last view of Mount Olympus." We arrived at Camp Three Lakes (altitude 3,500 feet) about six-thirty o'clock that evening. At camp-fire reports of preliminary scouting trips and trail building were given. The difficulties attending such work could well be appreciated after the day's experience.

Thursday morning the announcement was made that the day's march would be "as you like it," thirteen miles over an excellent new Forest Service trail to Lake Queniult. As water was scarce on this trail, it was a great pleasure to find a big pan of it which Richard Olson had thoughtfully placed on the path, having carried from a spring two hundred and fifty feet below the trail. At trail builders' camp "No. 3," there was a splendid spring where many stopped for lunch, then after a few miles, we came to the first farm house. These people knowing that the Mountaineers were on their way out from the Olympics had provided apples and water to refresh the thirsty travelers. Kindness attended us on every side.

At Lake Queniult there was much excitement as every one hurried to the store to get his mail and then to supply himself with the essentials—candy, cookies, cakes, sweet chocolate, and so on—which would make it possible for him to give a potlatch. After sharing in the distribution of gifts, he would seek his dunnage bag; select a place to put it; then go to the creek or lake to enjoy the luxury of a bath.

The Indians of the Reservation were invited to have dinner with us and to remain for the circus which was to be given in the evening. The big circle of Indians and Mountaineers which formed around the camp-fire was duly repaid when Mr. Caldwell, the ring-master, presented original animals, the boy-faced girl, and all of the many wonderful circus attractions. Then a short talk was given by Professor Meany, who introduced Little-Big-Chief, who was to make the announcements for the following day. "Why should they call him Little-Big-Feet," whispered an Indian woman, "his feet are not so big." One of the Mountaineers was heard explaining, "Not Little-Big-Feet, but Little-Big-Chief; he is our Tyee." The dance which had been arranged by the villagers attracted a large number. Sounds of merry-making were heard until—well, until the strains of "Home, Sweet Home" were played the last time.

August twenty-second, we left our pack train of thirty-two horses and our good friends, the packers, stepped into canoes, and pushed off from shore. Soon two long lines of canoes, manned by Indians, were attached to two motor boats which towed them down the creek and across Lake Queniult, releasing them where the current caught and bore them on down the river.

The trip down the Queniult River with its manifold beauties and experiences beggars description—the swift current, the whirling eddies, the deep, dark-green water, trout leaping into the air to catch the flying insects, the banks clothed with magnificent forests, log jams through which or under which we passed, animated branches marking the rhythmic motion of the current, the floating canoes gliding into the deeper, darker water to seek the current that hurried them on and ever on to the ocean. The Indians skillfully guided the little craft through the dangerous places, then settled back to rest until the next test of skill or strength was necessary, in the meantime relating bits of history or legends which explained names or some natural phenomenon. The boom of the surf announced the end of the journey. As the Mountaineers left the canoes on the beach at Taholah, it was agreed that the trip down the Queniult marked the red-letter day of the 1913 outing.

That evening as we gathered around the camp-fire to hear the committee on resolutions give its report, to listen to Professor Meany tell the last camp-fire story, then to stand and join hands while we sang our last good-night song, we realized that our happy circle was soon to be broken.

Saturday morning after breakfast, Chief Taholah talked to the Mountaineers through the aid of his son, Billy Mason, who interpreted the words of the old chief. He shook hands with us and bade us farewell.

A trip of nine miles along the ocean beach brought us to Moclips where the time was spent in bathing, buying Indian curios, or giving pot-latches until train time. Finally our train appeared, bringing with it a dining car. The time passed all too quickly as we were hurried along, singing songs, telling stories, and talking over plans for lodges or shelters which we hope to build. A subscription book was circulated in which pledges for more than three hundred dollars were made toward the erection of our first lodge.

It was with regret that we watched our friends leave us at the various stations. When we said our last good nights and goodbys at the King Street Station, we knew that the outing of 1913 had passed into history, but that the joys and experiences of such a trip had enriched each life.

P. M. McGregor

STIFF CLIMBING ON A TRYOUT TRIP. NEARING THE TOP OF MT. SEATTLE

THE ASCENT OF MOUNT OLYMPUS

MARION RANDALL PARSONS

AUGUST ninth was a busy day in Elwha Basin. Late snows having made it impossible to take pack animals across Dodwell-Rixon Pass, the conquest of Mount Olympus necessitated a knapsack trip. Many were unprovided with knapsacks or packstraps and ingenuity was sorely taxed to improvise easy-riding packs. Sweaters, coats, trousers, even stockings were pressed into service; and the dunnage scales achieved unwonted popularity as worried novices endeavored to make necessities balance with their self-imposed limitations as burden bearers.

The volunteer corps of young men who travelled to the Queets Basin and back that day, carrying the bulk of the commissary, lightened packs wonderfully for the rank and file, indeed made the trip possible for many who otherwise might have hesitated to undertake it. This was only one instance of the splendid spirit of co-operation manifested throughout the outing, a really wonderful spirit of unselfishness and willing service that contributed very largely to the trip's success.

Brilliant sunshine made a happy omen for our departure next morning. With hearty cheers and good wishes from our comrades who remained behind, we started gaily upstream towards the fine water-fall that hung high on the western wall above camp. Just beneath the fall a low defile gave easy access to the main Elwha Canyon. The young stream, the headwaters of the river we had followed from the Straits, was entirely hidden under its winter coverlet of snow. From wall to wall stretched the steep white slope, flecked with brown hemlock cones and branches torn from the storm-swept, struggling trees above. On the heather-grown slopes and rocky abutments of the canyon walls colonies of marmots were established, whose shrill warning whistles mocked the instrument of authority that timed our breathing spaces. Lucky indeed we felt it to be, as we toiled upward under our packs, that these denizens of the hills attuned their alarms to the stopping signal!

A strange, outlandish crew we were, we pilgrims to high Olympus. Nothing in countenance or accoutrement suggested the lofty nature of our aspirations. With faces daubed with grease paint of varying hue and quaint design, with shoulders burdened with knobby bundles, with tin cups, bandanna lunch-bags, field-glasses, ropes, ice-axes, alpenstocks, cameras, or cooking utensils variously disposed about our persons, we trudged solemnly upward in single file towards Dodwell-Rixon Pass. Soon the tedium of the slow climb in line was pleasantly relieved

by the order to march three abreast, a device used to excellent advantage on the easier parts of the climb next day. Story and jest could now pass from line to line, and excepting during halts, when widening views behind us gave the measure of our ascent, we could almost forget the two thousand feet we had to climb.

The summit of the pass was crowned with a wide snowfield where nestled a half-frozen lakelet of brightest blue. Just over the western side, overlooking Queets Basin, we found a warm ridge of rock for our nooning. The most glorious prospect we as yet had seen was before us—the central, culminating group of the Olympic Range, its flanks hardly more than a mile away. Above its dark crags, its luminous snowfields and glaciers, rose the white, three-peaked crown of Olympus. Directly in front of us lay the whole extent of the Humes Glacier, from the névé below Blizzard Pass to the brown-veined, blue-crevieed, precipitous face, cleft by a bold, outstanding ridge of rock. A beautiful parkland stretched below the zone of snow and ice, with scattered groups of conifers and openings of tender green; and farther beyond, towards the southwest, opened the blue vista of the Queets Valley with its interlacing, forested hills.

A short descent over snowfields brought us to a wonderful flower garden. Erythronium lilies first appeared, budding through lingering patches of snow as if impatient for spring and sunshine; alpine phlox bloomed on dry, rocky slopes; glowing patches of buttercups or pale anemones brightened marshy bottoms; modest veronica, fragrant violets of daintiest blue—no such wealth of blossoms had we seen elsewhere in our Olympic wanderings.

So beautiful was the whole basin that we more than ever regretted that weather conditions made it impossible to establish there our permanent quarters. Temporary camp, though steep and many-storied, was surprisingly spacious and comfortable compared with the bleak, unsheltered spot experience had taught us to expect. The warm, southerly slope was covered with a thick growth of heather, a splendid foundation for most luxurious bough beds. Alpine hemlock and fir, with here and there a mountain pine and graceful Alaska cedar, grew in open stands upon sloping benches or formed a close cover on the steep sides of glacial canyons. Near by, the stream flowing down from the pass plunged into its deepening canyon in a splendid waterfall. Rhododendrons were in bloom, violets and anemones decked the meadows, and the air was soft and warm even though snow and ice pressed so close. Our eastern horizon was closed by Mount Queets with its fine glacier, our western by the face of the Humes Glacier, a magnificent wall of blue seraes. That sculptured precipice of ice with the sunset glowing in rose and gold behind it will long linger in our memories as one of the most beautiful pictures of the summer.

H. V. Abel

CREVASSE AND SNOW BRIDGE

This incision is located on the Hoh Glacier near the east base of Mt. Olympus and not far from the climbing route to the top. In the winter these crevasses are filled with snow. The snow bridge is the only remainder of last winter's drift.

The return of two men who had climbed Middle Peak of Olympus that day to reconnoitre our route, cast a slight shadow of discouragement over our hopeful band. The climb had proved unexpectedly irksome, a heart-breaking course over steep, soft snow with the hot sun beating unmercifully upon them from the moment of its rising. Moreover, a fall of rock on the northern face of the Middle Peak had rendered the West Peak inaccessible, in our leader's judgment, from our intended point of attack.

However, dinner time found dismal forebodings forgotten, and a short round of story telling at the camp-fire afterwards sent us all cheerfully to bed. By dusk the fireside was deserted, save for the leaders and captains of the climb who lingered for half an hour to discuss final arrangements and draw up the lists and order of the companies.

By firelight we breakfasted and in the early dawn sixty-seven of us formed in line. An elk trail, striking southward from camp, led us down a precipitous canyon wall to a glacier stream, which we crossed and followed nearly to its source. Crossing again a little below the terminal moraine, we started up the snowfield north of the Humes Glacier. Greatly to our relief the snow was in excellent condition, firm and hard in spite of the unusual warmth of the preceding day and night. The morning had dawned clear, but the sky was now rapidly becoming overcast. About timberline we swung from the snowfield across a rock ridge and down upon the Humes Glacier. Winding among crevasses, we made our way to the wide snowfields covering the glacier's upper reaches. Here again we could walk abreast, though still preserving company formation, and make good time up to the island of rock near the glacier's head, our first resting place.

It was still early morning, hardly eight o'clock, but as we rested and filled our cups at the tiny trickling streams, many lunch-bags were opened and toll taken of the good things therein contained. With the inner man refreshed, the eye took more conscious note of the panorama unfolding before us, widening, near-by ranges, distant peaks, tints of copper and pearl in the cloudy sky above.

Soon we were on the march again, in single file, up the steep snow to Blizzard Pass, the divide between the Humes Glacier and the Hoh. Mount Rainier was now in view, gleaming through the morning mist in indescribable splendor of light and beauty.

To reach the Hoh Glacier, over which the final ascent was made, meant a grievous loss of elevation, about seven hundred feet, and some of the steepest snow and ice work of the day. The snow rounded so abruptly from the summit of Blizzard Pass that standing there we could not see the slope by which we were to descend. Before Company D could round the summit Company A was lost to sight. But the footing was still good, and with captains posted below the lines to keep

a wary watch over their companies, we zigzagged down without slip or misadventure. Below the snow a treacherous slope of steep ice, which brought into play ice-axes and life-lines, gave us our one taste of skilful mountaineering.

Down on the floor of the glacier a few crevasses and snow-bridges lent variety for a while, but the most tedious part of the climb was this long ascent over the Hoh. Fortunately the overcast sky kept the morning cool, and our long line proceeded much more rapidly than the scouts of the previous day had anticipated. Near the base of the East Peak great crevasses opened, showing wonderful canyoned depths of green and blue ice veined with the brown of crushed rock; but none difficult to negotiate lay across our path. Towards the summit the snow pitched steeper and steeper, till we stood at last upon the narrow divide between the Hoh and Blue Glacier, beyond which, a mile and a half away, rose our perforce abandoned goal, the West Peak. However, the East Peak, with its scanty record of ascents, seemed glory enough for one day. Stacking alpenstocks at the edge of the snow, we made the short rock climb and at noon stood upon the summit.

The outlook from Olympus can hardly be surpassed the world over. Close at hand rises the wilderness of dark, rugged peaks composing the Olympic Range. On every side is the gleam of snow or the splendid downward sweep of glaciers, whose canyons, circling wide among distant, forested hills, swing out of sight towards misty regions where lies the great Pacific. The Straits of Juan de Fuca show to the north, a streak of silver, and west and south, beyond the bold summits of the sister peaks and the long, outlying white spurs stretching far into the forest country, sea fogs creep in and out among shadowy blue hills. Eastward, beyond the icy grandeur of the Olympics, lies the vast uplift of the Cascades, and still above them, shining in almost unearthly splendor, rise the giant volcanic cones, Baker, Rainier, Adams, and St. Helens, the great white watchers of the north. These glorious sentinels, lifting majestic heads high into the upper realms of light, glow with a lucent, vision-like beauty that lesser mountains never show, a more radiant serenity, as if they shone upon some borderland of the spirit, some coast of dreams where earth's beauty met the tides of things infinite and divine.

Most of us had eyes only for these distant wonders, but more observant mountaineers made search among the rocks for the alpine flowers that brave such harsh, wintry conditions to bloom on Olympian heights. Blue polomonium was found, pentstemon, and the lovely, rare Flett violet, bright expressions of flower faith in the eternity of spring.

Clouds and mist closing in upon us hastened our return. A short stretch of rock work, where we had to descend one at a time, held the party back, enabling those of us who went first to witness from the foot of the snow slope a rare spectacle of fun. Each ant-like figure

A. H. Denman

QUEETS BASIN,
HUMES GLACIER,
BLIZZARD PASS, AND
MT. OLYMPUS

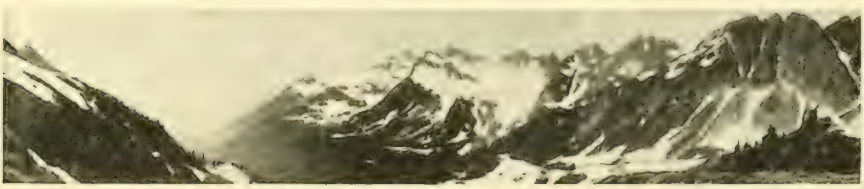
Mt. Olympus, with its great, rugged mountain buttresses composing the high, uplifted central mass of the Olympic Peninsula. The Queets Basin is defined by the park trees in the foreground, with the double nose of the Humes glacier above it. On the distant edge of the Humes glacier is Blizzard Pass, beyond which tower the peaks of Mt. Olympus against the clouds. Most of the route to the top is covered by this view.

that detached itself from the group about the rock and launched itself towards us on the snow, sped down with some distinctive characteristic revealing its identity from afar. Head first, feet first, standing, sitting, or revolving in a wild whirl of snow they came, all smiling wide smiles except one, whose satisfaction may have been even greater though his lighted pipe prevented any expression of it from reaching his lips.

The descent was without incident, but not so the succeeding night in Queets Basin. The lowering skies that drove us from the heights did their worst, and more than one conqueror of Olympus appeared half drowned at breakfast next morning.

Hidden that day were all the glories of glaciers and dark mountain summits; but flowers still bloomed at our feet, dim, ghostly forms of trees loomed towards us out of the fog, and the murmur of streams came to us though their sparkling waters were unseen. Near the summit of the pass clouds pressed upon us closer and closer, till all we could see was white, crisp snow at our feet and whirling, wind-driven mist about us. Olympus was entirely hidden, and as we hurried down across the snowfields towards Elwha waters, our one regret was that we had not seen its glorious crown again.

Many days later, as we trod the homeward trail, we reached a high-crested divide where that distant, shining summit again came into view. Time after time it gleamed before us, pictured for a moment between the trees, and then, with the next step forward, gone like a mirage in the desert. It seemed like a message flashing to us in farewell, a call sounding across shadowy forest lands to ring in our ears for many a day and summon us back at last to the High Country when the cares of every day would most seem to hold us fast. For as we journey down to the lowlands and the thoughts and aspirations of the city-bound months close around us once more, the radiant mountain world at times grows dim and far, and strangely unreal. It hardly seems to be of this every-day earth, but rather like a dear country of our dreams, a summer world of light and laughter where seasons never change nor flowers die. And yet it is a world we may re-enter at will—whenever spring voices call, or trail comrades meet together again.



MT. OLYMPUS AND QUEETS VALLEY *Leland Clark*

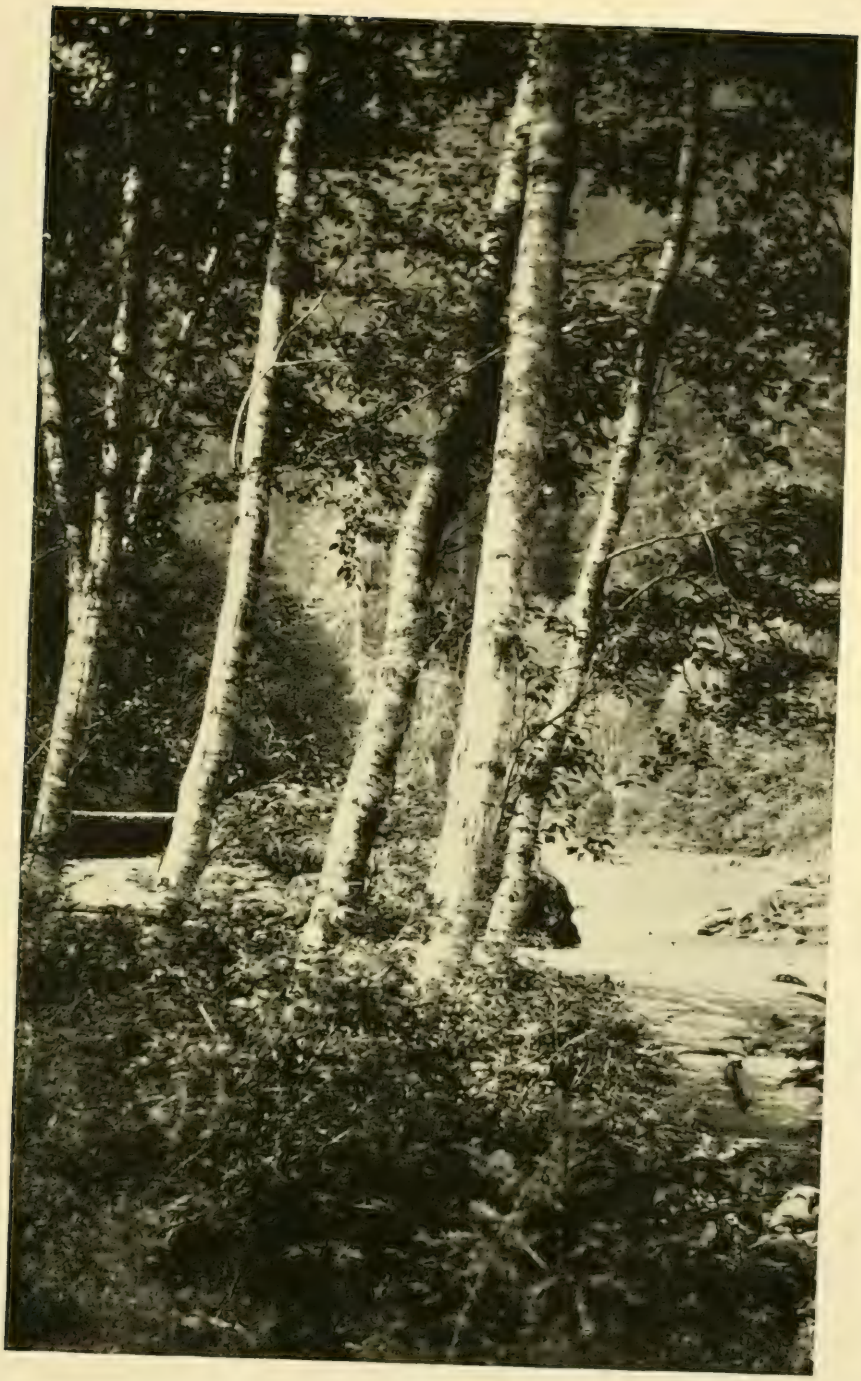
MELODIOUS DAYS

HUGH ELMER BROWN

IT IS hard to shun the "vice of the superlative" in speaking of my trip with the Mountaineers. I had a vacation fit for a king. It was a golden parenthesis of leisure from motor-cycles, circulating libraries, bill-collectors, and daily newspapers. The sights and sounds of "snivelization" became a hazy reminiscence. I laughed in the face of the clock and jested with schedule. I crawled out of the rushing current of life's employment and sat on the bank of complete rest and sunned my very soul.

MacDougall in his "Pleasant fields of France" tells of game preserves where it is well-nigh impossible for the hounds to follow the game. The fragrance of countless wild flowers is so strong that the scent will not lie. My vacation in the Olympic preserve gave deliverance from the dogs; the fierce pack of curs that yelp and worry were compelled to stand outside. I escaped completely from the over complicated life of the city where folks breathe second-hand oxygen and discuss books they have not read. My pilgrimage was not shackled by the compulsory castles, the mandatory museums, the required ruins, which enslave the traveler abroad. I was free to feed at large in the big out-of-door solitudes; to enjoy the pure hospitalities of life; to ponder the solemn wonder and beauty of existence; to "loaf and invite the soul."

He who is jaded in mind is easy prey to pessimism and cynicism, but to be thrown into the fenceless fields along with a hundred sifted spirits, all in festive and friendly mood, is to have one's optimism cheerfully and powerfully revived. Travel of any sort brings out what there is in a man, especially ocean travel. If you desire to know a man, then camp out with him for a week. If there are unsuspected elements in his make-up, they are sure to come into the open. No man can long be a hypocrite in his pleasures. And to find a group of a hundred drawn from the four points of the compass, held in the enforced socialism of trail and camp, besieged by the soft vicissitudes of each other's society and the occasional trials of the trip, and yet to find on closest scrutiny no evidences of ugliness, gloominess, or growl—this was fresh proof of the joyous soundness of normal human nature. Indeed the Mountaineers are the most interesting, the finest brand of sinners, I have met for a long while. They seem mixed together in a rugged conspiracy to make things go happily.



ALDERS ON THE ELWHA RIVER

H. A. Fuller

Dappled alders and filtered sunlight on the banks of the Elwha at Elkhorn. Through part of the year the mottled coloring of the bark is brighter and more varied than that of the beech tree, and the white is clearer than that of the white birch.

My memories of the trip are commingled in delicious medley. Each new-born day was seasoned with the spice of uncertainty. I know now what Stevenson meant when he spoke of "the bright face of danger." Can I ever forget the trembling thrill of Mt. Seattle with its walls of frightful plunge and how it was low tide on the beach of my courage. And how, as the days raced by, perils became more and more genial and confidence in calks and alpenstock grew apace. I recall the teaspoonful of Nuttovito which served for each noonday luncheon and the absence of pang at lack of finger bowls. I can see the "grub line" consuming erbwurst as though they were fattening themselves for market, and I behold knapsack trips which gave impending corpulence a severe setback. Brilliant-hued bandannas flutter in the distance and crisp curls of bacon enrage the hungry eye. Hilarity was abiding guest at campfire and yet reverence led to sleep under the cool infinitude of the stars.

The glaciers, of heavenly origin, taking their mold from the mountains, seamed with the scars of conflict, gradually acquiring a character of their own; wasting yet renewed by the unseen; bearing on their backs the accumulated spoils of the years; stooping at their greatest width and extension into groaning decrepitude; dropping their burdens one by one; giving forth from their wreckage arrowy streams which go leaping on and on to bless the world—the glaciers were to me rough pictures of the meaning and mission of mankind.

The trees, like some old and mellow violin, brought us into many a tender and thoughtful mood. The benediction of insignificance fell upon us again and again as we listened to the murmurings of forest giants which belong among the authentic antiquities of the world. Great cedars prostrate upon the ground, at bay against the vandalism of the years, mouldering in silence, solitude, and neglect, set one to thinking deep, long thoughts, and the elemental stillness of the woods, here and there, when silence seemed to be holding her breath, had for the soul a message all its own.

When Emerson was leaving Williamstown after a lecture, he was escorted to the station by a group of Williams College students. Turning toward the noblest of the Berkshires he said to the young men: "I should think, young gentlemen, that you would print the names of these mountains in your college catalogue along with the members of the faculty." The Olympics with their untrodden solitudes and spiry summits have much to teach the inquiring spirit. "Faith has still its Olivet and love its Galillee." Again and again the soul of every man and woman stood at salute before scenes of wild, incredible beauty and immensity. The "sound of streams that seek the sea" gave praise to Him who holdeth all in the hollow of His hand. Each summit brought its own unspeakable sense of detachment from lower things and its panorama of heart-piercing grandeur. Peaks became

so many raised letters whereby blind children of the Most High were enabled to spell out something more of the divine message. Body, mind, and soul were possessed with a strange ecstacy which no amount of prosy humdrum can ever utterly banish.

Now and anon, Prof. Meany caught some charming bird of beauty in his golden net of song; brought it down to earth; held it fluttering in his hand for us to feel and admire; but for the main, what our eyes saw, was and is beyond the potency of word-painting. We must side with the youthful theologue who said in describing the glories of a sunrise: "Friends, it is no use; words is a vacuum." But what we felt from time to time is safely at work within us, a silent, perpetual chemistry of good.

I had fun, piles of it. I tasted the luxury of adventure. I wore the boots of inexperience over wicked spots of trail. I interviewed the half-extinct memories of my hunting ancestors. I studied horseology trying to make up "backwork." Best of all and above all, I found new friends, who gave and give sparkle and zest to living. Richer than all the gifts of mountain, stream, and wood is the priceless benefaction of a trail-born comradeship.

C. G. Morrison

LOOKING EASTERLY ACROSS BEAUTIFUL LAKE MARGARET IN THE LOW DIVIDE BETWEEN THE ELWHA AND THE QUENIULT

A. H. Denman

MT. MEANY
FROM
MT. SEATTLE

The sharp, pinnacle peak of Mt. Meany, elevation about 7,800 feet, was named in honor of President Meany by the Press party which crossed the Olympics in 1889 and 1890. Mt. Meany is typical of the serrated ridges of the Olympic Mountains, which afford splendid rock climbing.

ASCENT OF MOUNT MEANY, AUGUST 13, 1913

J. HARRY WEER

NO event of the 1913 outing was more pleasing and gratifying than the ascent of Mount Meany on August 13th, made particularly interesting by the presence of Prof. Edmond S. Meany, in whose honor the spire-tipped peak was named by the Press party in 1890.

The party, twenty in all, left Main Camp in Elwha Basin at 8:30 a. m., traversing first the snow-finger in Marion Pass, to an elevation about 500 feet higher than Main Camp, then, turning abruptly to the right, assailed the steep slope leading up toward the peak.

Very little heather or grass was encountered and it was soon evident that lovers of "rock work" in mountain climbing would here have an opportunity to revel in that variety of the sport.

Despite the steepness of the ascent, the rock formation was all that could be desired in furnishing excellent footing and hand holds for the upward scramble.

Soon after leaving Main Camp the sky became overcast, but the clouds were not low enough to rob the climbers of grand views of the magnificent ranges of mountains which guard so well the Elwha River in its impetuous dash to the sea.

With increasing steepness the climb proceeded, while the steady ascent of the party and an equally steady lowering of the clouds brought them finally to the same level shortly before noon.

About sixty feet below the peak, the party reached the symmetrical pyramid which comprises the tip of the mountain and were here confronted by a rock wall, thirty feet high and apparently perpendicular.

Fortunately a few small niches, crevices, and projections furnished the means whereby several members clung to the wall at varying heights to support a life line stretched as a precautionary measure across the face of the wall at an angle of forty-five degrees.

Most of the party being experienced mountain climbers, the life line was of little use except in inspiring confidence, and one at a time the climbers made their way cautiously up the cliff, welcoming the chance to surmount such an obstacle.

A short scramble over a tumbled mass of huge, keen-edged rocks brought the entire party to the peak, with room so limited as to barely accommodate even such a small number. And, scorning the closely pressing envelope of clouds, a happy group it was—happy over the safe ascent of a mountain so precipitous—happy in the way realized

only by those who have experienced the satisfaction and inspiration of gaining such high elevations—but chiefly happy and grateful for the privilege and honor of having accompanied Professor Meany on his first ascent of "his mountain", a memorable event for himself as well as for his fellow climbers.

A bitter cold wind was encountered at the top, with the air filled with a flurry of snow, the fine particles cutting faces and eyes.

A brief stay of twenty minutes sufficed for hurriedly inscribing signatures to be placed in the record tube left by the Mountaineers in 1907, and for taking a few photographs, then all were glad to beat a hasty retreat to lower and warmer levels.

The descent of the rock wall was necessarily more difficult than the ascent, but using the same methods as on the upward trip it was soon accomplished without mishap.

One interesting feature of the ascent was the quick time made. In the first two hours 2000 feet were made and in the next hour 1500 feet, and then after a stop of fifteen minutes for luncheon the remaining 500 feet were made in 55 minutes, including the slow passage over the difficult sections near the summit. Deducting the luncheon time, a little less than four hours were required in making the climb of 4000 feet—largely "rock work,"—the descent being safely accomplished in two hours.

An aneroid barometer read 7150 feet at the summit, weather conditions making it read probably 100 feet in excess of the actual altitude.

THE SHADOWY QUENIULT *C. S. G.*

THE OLYMPICS IN HISTORY AND LEGEND

EDMOND S. MEANY

WE have safely come from the mountains to the sea. Here at our driftwood fire it will be well to recall some of the wealth in story and legend associated with the beautiful regions through which we have journeyed.

Most of our party had the pleasure of climbing to the summit of Mount Olympus. From that elevation we surveyed the mountain peaks and ridges, the ocean in the distance, the Straits of Juan de Fuca and Vancouver Island. To those who love the history of their home state it was a glorious thing to stand on the summit of Mount Olympus, for that was the first geographical feature in the State of Washington to receive a name from civilized man. It was a Spaniard, Juan Perez, who first saw the mountain from the deck of his little vessel out in the ocean. That was in 1774 and he called the mountain "Santa Rosalia." Fourteen years later an English navigator, John Meares, sailing along this same shore saw the same mountain. He did not know, or, knowing, he did not care, that a Spaniard had discovered and named it. He evidently said to himself:

"If that be not the home of the gods, it is beautiful enough to be so and I therefore name it Mount Olympus."

The Spaniard's journal was not published while that of the Englishman was, and his name of the mountain found acceptance throughout the world.

Somewhere between this camp-fire and Destruction Island the first landing was made on our shores. It was on July 14, 1775, that Captain Bruno Heceta and a few of his officers landed to take possession in the name of Spain. They planted a cross and at its foot a bottle sealed with wax in which was left a record of their names, the date, and the ceremony of taking possession. A little to the north, Bodega y Quadra sent a boat's crew ashore for wood and water. The Indians, in ambush on the shore, killed the white men and tore the boat into pieces to get the iron and copper. Quadra signalled Heceta and asked the privilege of landing at the head of thirty men to punish the Indians. He was refused and as they sailed away he gave to the near-by island the name of "Isla de Dolores" or "Island of Sorrows." A few years later another boat's crew was attacked by the same Indians and Captain Barkley called the river Destruction river. Later geographers have

NOTE.—The following address was given by President Meany at the last camp-fire of the 1913 outing. He spoke from a wonderful rostrum, a huge and silvered log that had been lifted by some great storm high on the ocean sands near the mouth of the Queniult river. The audience had gathered around the driftwood fire under the sheltering wall of the large spruce log.—Editor.

transferred the name Destruction to the island and have restored the Indian name Hoh to the river. You have had the pleasure of crossing the glacier on Mount Olympus where that river has its source.

In 1778, James Cook discovered and named Cape Flattery and in 1792, George Vancouver sailed along this very shore and gave to yonder cape its name of Point Grenville.

On this journey we have often seen at a distance the three beautiful peaks so familiar to dwellers on the shores of Puget Sound. I refer to Mount Constance, Mount Ellinor, and The Brothers. Those names were given by George Davidson in 1857. He became the Grand Old Man of Pacific Coast geography. For nearly half a century he was in charge of the United States Coast Surveys on these shores. During his lifetime he would only say that he had named his survey brig the "R. H. Fauntleroy," for whom he also named Fauntleroy Cove, and that the names of the three Olympic peaks were given in honor of members of the Fauntleroy family. When Mr. Davidson died, a year or two ago, it was learned that a year after he had named those peaks he became the husband of Ellinor Fauntleroy. So one of the smaller but best known of these peaks was named by a young surveyor after his sweetheart.

In 1890, Governor Elisha P. Ferry announced that the Olympic Peninsula comprised the greatest area within the United States proper that still remained unexplored. That announcement caused the Seattle Daily Press to send through these mountains what has since been known as the Press Exploring Expedition. I was designated treasurer of the expedition and went with it part way up the Elwha river. That is the reason that the leaders of the expedition gave my name to one of the many peaks they named and charted. Some but not all of the names they gave have remained. Among them are those of some of the mountains you have just been climbing, such as Mount Seattle, Mount Barnes, Mount Christie, and Mount Meany. The expense of that expedition was borne by Mr. W. E. Bailey, owner of the Seattle Daily Press. His name was given to the range that includes Mount Barnes. I sincerely hope that Bailey Range will be continued in use as one of the Olympic names.

You may be interested to know that part of the program of that expedition was the sending of signals from the highest peaks. At the Seattle end, on the agreed night, I climbed to Seattle's highest building, the old University, and, with the fine telescope loaned by Arthur A. Denny, kept watch all night. There were no signals. Weeks later we got a message from Grays Harbor explaining the failure of the signals. One of the pack-mules had fallen over a cliff and with it went the red fire. Soon after that accident the men turned loose their other mule and came on through the mountains with their

packs on their own backs. I had loaned my watch to Leader Christie. He lost it in the Queniult river but recovered it and I now count it one of the interesting relics of that important piece of Olympic exploration.

With Harry C. Coffman and Albert Gale, I had the pleasure in August, 1905, of walking along this ocean beach from Moclips to Neah Bay. We carried our blankets and food on our backs and the journey took twelve days. We crossed the mouths of rivers whose snowy sources you have explored this summer. We visited five Indian reservations and at each one we gleaned some of the quaint folk-lore. Not many miles north of this camp-fire I met Johnny Shales. In the evening we walked along the beach and sat down on a bleached driftwood log. On one side was the booming music of the ocean, on the other was the silent forest. Overhead the stars began to people the sky. He was enough convinced of my sincerity to tell these stories or legends he had received in his boyhood:

MISP THE TRANSFORMER

Many, many snows ago when men were learning how to live better than animals, Misp travelled up and down this shore teaching men how to live.

One day while walking on the beach, he saw a deer grinding large mussel shells on a big rock.

"What are you doing?" asked Misp.

"I am making a knife," replied the deer.

"What for?"

"To kill Misp."

"Why?"

A. H. Denman

LAUNCHING AN OCEAN CANOE AT POINT GRENVILLE ON THE PACIFIC. ARCH ROCK IN THE DISTANCE

QUENIULT INDIAN BOY

"Misp shows men how to kill us and use our meat and our skins, so I am going to kill Misp."

"Ah, that is a fine knife. Let me see it."

Then Misp, who was not recognized by the deer, seized two of the knives and holding the frightened deer by the neck, he plunged a knife on each side of the deer's head and then shouted:

"Now run, jump, then stop, look around! That is the way you will always do when my people hunt you for food."

When you see one of these large mussel shells you will see how much it looks like a deer's ear and when you see a deer on the beach you will see how it still acts just as Misp told it to do.

STEALING FIRE FROM HEAVEN

The animals of the land sent a challenge for battle to the animals of the sky. No answer came and the challenge was repeated again and again. The animals of the sky seemed only to laugh at the challenge.

Then the animals of the land asked the animals of the sea to come and help them carry the battle up into the sky. The animals of the sea joined the animals of the land. Together they searched the forest for the largest and strongest yew tree. Of this they made a huge bow. Then they gathered all the sinew they could get and made of it a great cord for the bow. Then they searched the forest again for strong straight arrows.

When all was ready they pulled together and shot an arrow into the sky. Before it turned to fall a second arrow was shut up to touch the first one, and then a third one, and so on until they had made a rope of arrows from the land to the sky.

Then the animals of the sea and the animals of the land climbed up the arrow rope to give battle to the animals of the sky. Very soon they came to a river.

"Can't you see the river?" asked Johnny Shales, as he waved his hand toward the Milky Way.

A QUENIULT INDIAN TYPE

They hastily sent to the land for Beaver who can fight on land or in the water. Beaver swam across the river. On the other side he found a strange thing. In the house of one of the animals of the sky was a warm fire burning. He stole a piece of the fire and ran back to the river.

The animals of the sky were then for the first time aroused. They saw their secret of fire being stolen. With wild shouts they gave chase. Beaver swam the river and slid down the rope with the precious fire. But the other animals of the sea and of the land became alarmed. So many started for the rope of arrows that it broke. That is the reason there are animals of the sea and animals of the land still up there in the sky.

"There is the whale, there is the seal, and there is the bear."

P. M. McGregor

CHIEF THREE KNIVES, THE CHIEFS TAHOLA, LITTLE BIG CHIEF

THE DOLOMITES

A. H. ALBERTSON

UR route through the Dolomites covered a hundred miles and lay from Innsbruck in southwestern Austria to Toblach, from Toblach to Cortina, and then down the military road that hangs and winds above the Ampezza Valley to Belluno in Italy.

The Dolomites form the most eastern sweep of the general alpine upheaval and are a strange mountain formation quite unlike the Alps proper and probably unlike anything else in the world. They have their base two or three thousand feet above the sea and rise five to ten thousand feet in height without snow caps—being too close to Italy. Each Dolomite is so different from any other that it is impossible to describe them en masse except a few common characteristics. They might be considered a museum of mountains. While there is no dominating pile like Mt. Rainier, there are dozens of terrific rock masses of eternal strength and huge, fantastic skyline. The profile of one has the appearance of a gigantic locomotive a mile long—boiler, smokestack, dome, and cab complete; some are like cathedral spires; some are like battleships; and some like the great wall of China, or perhaps like the final fortress of all the earth at the end of the world, built to withstand shafts of lightning and the dynamite of earthquakes. Towers, battlements, obelisks, and ruined masonry of ancient castles and fortresses mount up at times several thousand feet high above the sheer walls.

The rugged and self-asserting Dolomites show no definite plan of arrangement like most other mountains, but seem to break through the surrounding scenery like irregular and misshapen teeth or molars of the earth, and stand as individual and bizarre works of nature built of rock. For the most part they are without vegetation though well below the usual timber-line, their sheer and abrupt sides giving trees and plants no opportunity to grow; the forests which climb far up the altitudes in other parts of the Tyrolean Alps, wedding the mountains with the valleys below, are wanting here.

The mountains themselves are more spectacular than our Washington ranges but the supporting scenery of forest, stream, and mountain park is comparatively meager and rudimentary. The uplying parks have their characteristic villages, and every narrow valley has a shoestring ranch with its Swiss cottage hanging up on some wave of the mountain-side or swinging low in the bottom. Think of

TRIPLE PEAKS OF PATERSATTL

These peaks show one of the many varieties of mountain architecture found in the Dolomites. They are of the type referred to in the text as "molars of the earth." The soft, pearl gray color does not show except by suggestion on the rocks in the immediate foreground.

farming in Buck Creek Pass, or Queets Basin, or Indian Henry's Hunting Ground! To a layman the wild flowers seem much like ours—wild roses, poppies, ragged robins, yellow pansies, thistles, lilies, buttercups, purple dandelions, maroon clover, Alpen rosen, and higher up the edelweis. Of trees there are the familiar pines, firs, tamarack, and other evergreens. The rock mountains in the form of domes, buttes, or great cathedrals stand closely together and seem to crowd one another—a veritable city of mountains and that a city of the gods.

The Dolomites were first described in the eighteenth century by the French geologist Dolomieu, after whom they were named. Geological speculation has long concerned itself with the producing causes of these strange mountains formed of fossilized marine animalculae. They are similar in nature to coral reefs and show that at one time they were covered by the sea. The vertical walls and general forms correspond closely to those of coral reefs. Distinct traces of the coral structure can be seen in spite of the disintegrating action which has been going on for ages.

The prevailing color of the rock walls and slopes is a sheen of silver gray, soft and rich like some royal robe. Perhaps it could be better described as the thick fur of the silver gray fox covering the rock mountains and giving them the appearance of being fully clothed, except where some bold formation juts forth and where the talus mounts up some fissure. The secondary color is a variable ochre mixing with the silver gray and shading into buffs and browns. Here and there a deep, soft, velvet black shows in streaks and patches. This

black is a lichen moss fond of moisture and taking the shape of wet surfaces upon the walls, or of small, straggling rivulets. Added to this warmth of tone in the mountain garb is the changing color effects occurring from hour to hour and at even shorter intervals as the sun travels. These kaleidoscopic shifts in light and shade delight the traveler beyond words and are the despair of the artist who finds it difficult to transfix the changing shapes and moods and to catch the splendor and warmth of the elusive shadows and colors. The crowded plan and characteristic outline of these mountains separated only by narrow, winding valleys between the rock walls; their coral formation; their lack of vegetation; and their coloring that is more than earthly, combine to make the Dolomites unique throughout the known world.

DOWN THE QUENIULT RIVER *M. R. P.*

*A FEW FLOWERS OF THE HIGHER OLYMPICS

WINONA BAILEY

THE peculiar interest that attaches to the flora of the Olympic mountains lies not in the number of new or distinct species, although there are several whose range is so far confined to this area, nor does it lie in great flowery meadows and parks, although these may be found, but the most striking characteristic is the curious mingling of lowland and mountain forms. In the Elwha Basin, for instance, last August the most conspicuous flower was the big yellow lily (Lilium parviflorum) common on logged-off and open ground all around the shores of Puget Sound. The red columbine (Aquilegia formosa) found on the Olympia and Tacoma prairies, here associated familiarly with the heathers, purple and white (Phyllodoce empetriformis and Cassiope mertensiana), and the avalanche lilies (Erythronium montanum).

But a similar statement might be made of all the physiographical features of the Olympics. They are like the Cascades on a reduced altitudinal scale. While from two to six thousand feet lower they have the same arctic characteristics. Here the forest belt and the park belt suddenly merge at about three thousand feet, the snow remains late far down into the timber, and glaciers head at the elevation they end in the Cascades. In the same way the whole floral scale is compressed and plants ordinarily arctic are found at three thousand feet or even lower, while the rocky summits afford root-hold for numerous alpine species.

Much has been said about plants found in the Olympics and not elsewhere. As a matter of fact, about a dozen such distinct kinds are at present known. But the similarity of the Olympic flora to that of other Washington mountains is the noticeable thing, not its difference. Such difference as does exist is due largely, no doubt, to geographical isolation and consists as much in the absence of plants common in similar environments elsewhere as in rare species here. Of such species several were observed last summer: Flett's violet (Viola flettii) on top of Mount Olympus, an exquisitely beautiful flower with reddish violet petals and dark red-veined reniform leaves; on Mount Barnes, a yellow composite, Flett's senecio (Senecio flettii), and Piper's harebell (Campanula piperi), the "flower in the crannied wall" of the Olympics. It is a bright, clear blue with light grayish leaves, growing generally in crevices of the rock. Unlike other hare-

* A complete list of Olympic flowers will be found in the Mt. Baker number of the Mountaineer.

bells it turns its face upward to the sky instead of drooping. Henderson's spiraea was on all the mountains climbed. The flowers in a dense spike an inch or two long are easily identified as spiraea, though the plant grows low in a dense mat. On Marmot Pass was a big white aster (Aster paucicapitatus). On Mount Meany and Marmot Pass a very showy, purple, leguminous flower was found (Hedysarum occidentale), which does not occur in the Cascades but is found in the Rockies and northward.

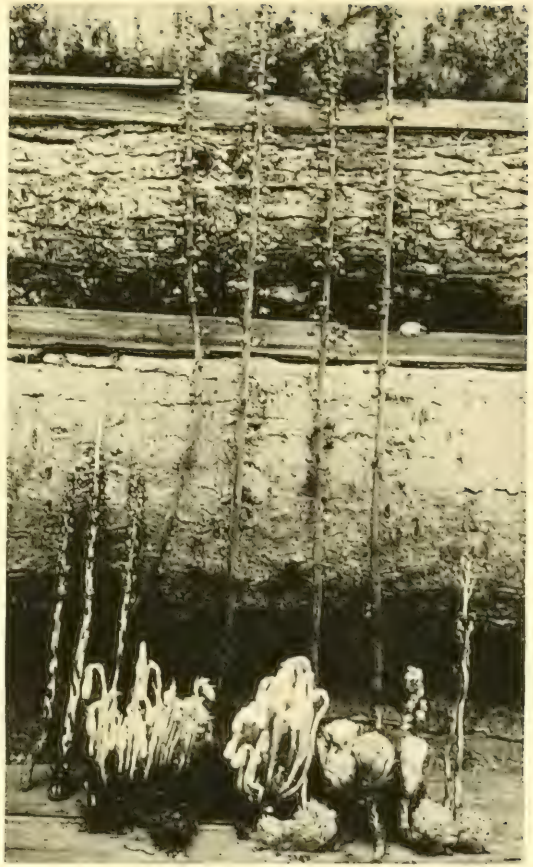
Because the Olympics are formed on a smaller scale than the mountains farther inland, it might be expected that the meadows and parks would not be of so great extent and would therefore give no opportunity for those great variegated flower carpets seen on Mount Rainier and other parts of the Cascades. This is true in a measure, particularly in the vicinity of Mount Olympus, where summit crags and glacier-bearing slopes seem to rise precipitously from the forests; and yet Queets Basin is a wonderful garden even in a year like 1913 when the snows linger deep and late. Farther north towards the Straits are long, broad-topped, untimbered regions where the flower display rivals anything in Washington. Mount Angeles, first outpost of the embattled host of the Olympics, is unsurpassed as a field for the botanical collector or observer, and no doubt even yet has new treasures to reveal to some searcher. Only three years ago a large white aster-like flower was found on this mountain and named after its discoverer (Senecio websteri). South and west of Mount Angeles is the ridge of Hurricane Hill. A party going in there from the Elwha River near Humes' ranch last summer report that not Paradise Valley nor Indian Henry's has so extensive and such gorgeous flowery parks.

The summer time from snow to snow would be too short to make more than a superficial survey of the plants of this mountain group. This article can undertake nothing more than a mention of certain flowers that would attract the attention of the non-scientific observer making a few one-day try-out trips in the Mountaineer's line-up.

Leaving Elwha Basin with its shrubby growth of pink mountain hard-hack (Spiraea densiflora), interspersed with squaw or Indian basket grass (Xerophyllum tenax), wild heliotrope (Valeriana sitchensis), meadow-rue (Thalictrum occidentale), and mountain smartweed (Polygonum bistortoides), one crosses the yet snow-buried west branch of the Elwha to the little green meadow below the moraine in Marion Gorge, so named by the Mountaineers in 1913. In bright contrast to the rocks of the moraine and the foaming glacial stream is the purple monkey-flower (Mimulus lewisii) and close by the deep yellow monkey-flower (Mimulus langsdorfii) which has come up from the lowlands, and the light yellow willow-herb (Epilobium luteum). But rarer than these which border countless mountain streams in Washington is a little raceme of cream-colored bells, a member of the Saxi-

Mabel Furry

DODECATHEON JEFFREYI—"SHOOTING STAR"



J. B. Fleet

ENTIRE INDIAN PIPE FAMILY AS REPRESENTED IN WASHINGTON, TAKEN IN THE OLYMPIC MOUNTAINS BY J. B. FLEET. FROM LEFT TO RIGHT: ALLOTROPA VIRGATA, MONOTROPA UNIFLORA, PTEROSPORA ANDROMEDEA (TALL), HEMITOMES CONGESTUM, HYPOPITYS HYPOPITYS.

frage family (Elmera racemosa). This was seen commonly in the Olympics in all kinds of rocky places, even on the summit of Mount Olympus. It is known on Mount Rainier, but has been found there by the writer only once, on the moraine of Frying Pan Glacier. Going on up the gorge a boggy place by some side stream has beautiful shooting stars (Dodecatheon jeffreyi), "little red elephants" (Pedicularis groenlandica), a delicate white flower with iris-like leaf (Tofieldia intermedia), the butter-wort, so-called from the appearance of its leaves (Pinguicula vulgaris), the most common of insectivorous plants, a cannibal, a veritable little wolf in sheep's clothing, since it puts on the semblance of a violet. Here too is the true violet of the marsh (Viola palustre), the tiny speed-well whose looks say "forget me not" (Veronica alpina), and a leathery leafed saxifrage (Leptarrhena amplexifolia). Higher still the projecting rocks are brightened by mats of purplish scarlet, which on closer inspection prove to be one of the primrose family (Douglasia levigata). Near this are yellow arnicas (Arnica latifolia), a low growing parsley (Lomatium martindalei), with a saxifrage or two (Saxifraga tolmiei, S. bronchialis, S. cespitosa). And yet above these Henderson's spiraea (Spiraea hendersoni), and, Alaska spiraea (Lutkea pectinata) mingle scarcely distinguishable at a little distance. If one turns towards Mount Meany he may expect to be rewarded with a fireweed (Epilobium latifolium) with blossoms even larger and more brilliant, if less numerous, than those of Epilobium spicatum, that glory of the burn.

A day's trip into Queets Basin even with the late lying snows of the season of 1913 well repaid the flower lover. As the line wound its way from Elwha Basin camp-site to the upper Elwha, there beside the trail were tall, graceful hare-bells (Campanula rotundifolia), slender little hawk-weeds (Hieracium gracile), large brilliant yellow St. Johnsworts (Hypericum scouleri), stiff fronds of the holly fern heavily charged with spore-cases (Polystichum lonchitis), shrubs of mountain ash (Pyrus occidentalis), and an occasional mountain golden-rod (Solidago corymbosa). Purple pentstemon (Pentstemon menziesii) clung to the rocks above the great snow field near Dodwell-Rixon pass. A stop for rest and water was called by a little stream, that spread out into a diminutive marsh, newly thawed, but already golden with a wonderful mountain buttercup (Ranunculus suksdorfii). So eager is this flower to open its shining petals to reflect the sun that the writer has seen it actually blooming in a snow bank's edge under an inch of ice that had evidently not yet melted during the season. It had no length of stem but looked as if its glowing face had warmed a little space for itself underneath the clear hard covering.

In Queets Basin the flower that grew so abundantly, that everyone mistook for an anemone, was the globe flower (Trollius laxus). The dense mats of pale blue and lavender phlox (Phlox diffusa) and beds

of yellow dog-tooth violets (Erythronium parviflorum), with all the heathers, white rhododendrons, yellow violets, and potentillas (Viola glabella and Potentilla flabellifolia) caused many a pause for admiration.

Another day and another direction brought a new charm in a different group of flowers along the newly built trail up a steep openly-forested hillside to the Low Divide. Here revelled the pyrolas or wintergreens (Pyrola secunda, P. bracteata, P. picta), the prince's pines (Chimaphila menziesii and C. umbellata), the creeping raspberries (Rubus pedatus and R. lasiococcus), and exquisite pink and white saprophytes of the Indian pipe family (Hypopitys hypopitys and Hemitomes congestum). A little farther down in this forest others of this family had attracted much admiration, tall pendent pine-drops (Pterospora andromedea), and striped stalks of Allotropa virgata. Here and there was a little bed of stenanthiums (Stenanthium occidentale) or pedicularis (Pedicularis racemosa), while some spot a little wetter than the rest was overgrown waist high or more with green orchids (Limnorchis stricta), fringed or tasselled clusters of white Trautvetteria grandis and great, dark-blue larkspurs (Delphinium scopulorum). And near the divide every little stream made a swampy spot for white marsh marigolds (Caltha leptosepala).

But on the topmost heights—what may one expect to find there? On our higher Cascade peaks the last flowering plant is left far behind ere the summit is reached, but in the Olympics the rock piles that project above the surrounding snow areas and form the summit of many peaks have in some way caught the seed and become the home of a considerable variety of plants. On the east peak of Mount Olympus, a mere heap of rocks, mostly loose, only a hundred feet or so above a snow field miles in extent, with barely standing room on top for our party of sixty-seven, the following plants were found in bloom: Saxifraga cespitosa, Polemonium humile, Phacelia sericea, Pentstemon menziesii, Elmera racemosa, Viola flettii, Hoorebeekia lyallii. There doubtless were others, but it was not possible to make the search complete.

A collection of Olympic flowers has been made and is in the care of the Historian.

A WHITE ASTER OF THE OLYMPICS *J. B. F.*

LOCAL WALKS

HAZEL BURROUGHS

WHAT cities are more delightfully situated for out-door excursions than are ours of Puget Sound? In order to more fully enjoy our natural surroundings, "The Mountaineers" were organized in 1906 with headquarters in Seattle. Since then two branch clubs have been added, one in Everett and the other in Tacoma. All three have local committees which plan the walks.

Twice each month they sally forth for a day in the open and wonderful days they are, when from fifty to two hundred people follow the leader over his chosen trail.

Only a small number of the Mountaineers are able to take advantage of the summer outings as compared with those who participate in the local walks.

During the past year twenty-eight walks were successfully conducted by the Seattle division and about the same number by the branch clubs.

A splendid New Year's outing was capably managed by our Tacoma members. Of course they took us to "Mt. Tacoma," where we spent five blissfully happy days. Word was sent ahead that we were to be there, so the snow and ice sprites had been busily at work. They artistically arranged and decorated everything in sight. Icicles hung resplendent from the eaves of the Inn, the trees with gracefully bowed branches were dazzling with snow-crystals, and the ground was covered with the whitest of carpets. Within the Inn were warmth and comfort, and much time was spent before the large, crackling logs in the clubhouse, where good fellowship and mirth were to be found in abundance.

Footwear was especially interesting. Some walked clumsily along on "bear-paws," while others "mushed" on snowshoes brought from Alaska. For each variety of snowshoe there was a snowshoe trouble.

Many of the party reached Narada Falls, a wonderful sight in its fleecy robes veiled by falling snow. Six energetic members braved the elements and reached not a golden but a pure white Paradise Valley. At nightfall we sat around the fire and listened with bated breath to their feats of daring, battling with a blizzard, warring with winds, and amid falling firs hunting for the homeward trail.

As a fitting close Rainier came forth from the mists into the clear early morning light, a greeting and farewell in one.

Others equally anxious to enjoy the winter beauty and wonderful radiance of the snow joined in the February outing at Scenic Hot

Springs. Keen delight was taken in skiing and tobogganing on a seven-hundred foot slope back of the hotel. The snow conditions, congenial party, and able leader made this an altogether memorable trip.

Most of the walks have as their object a splendid view, huckleberries, rhododendrons, birds, salmon, or sometimes a delicious chicken dinner, such as we enjoyed last winter, prepared by our former chef, Robert Carr.

As a real test of ability one or two long walks were taken. From Seattle to Tacoma they marched twenty strong a distance of twenty-six miles in eight and one-half hours, following the old trail laid out by General McClellan. Their intention was to reach Tacoma by five o'clock that they might return with their comrades who had gathered modest violets on the prairies about Spanaway Lake.

Do women go on these long walks? They often lead them!

The rhododendron walk at Chico is always a favorite and is sure of a large attendance. Two hundred and eighty appeared early that May morning with "lunch, cup, and spoon," ready to spend a pleasant day at Hidden Ranch, the interesting home of the Paschalls, and to roam about on Kinikinick Hill amidst a wild profusion of Dame Nature's loveliest flowers.

Our Everett friends have the happy faculty of selecting beautiful as well as interesting walks. The large timber tracts between Seattle and Everett have many delightful trails, and the Indians on the Tulalip reservation are always hospitable, entertaining with music and canoe races, and refreshing the tired walkers with baked clams.

Our reunion and clam bake at Lincoln Beach was held in June. The already appetizing lunches were further enhanced by clams and hot coffee served in true Mountaineer style. We gazed and gazed on the great camp-fire sending its live sparks seaward and as we listened to the waves lapping against the rocks thought we had never before seen such beauty.

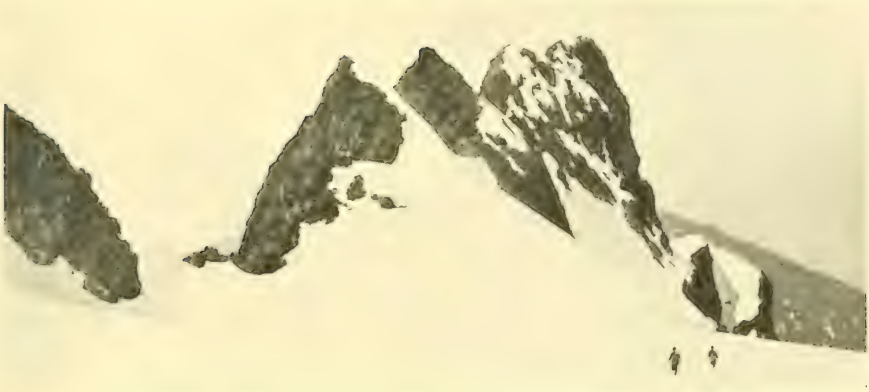
Do the Mountaineers stay indoors during the rainy season? Only the fair weather members. It almost never rains all day. The club has never given up a walk because of the weather; they think "The big gray days are exhilarating, and the colors of leaf and branch and mossy bole are then at their best."

MOUNTAINEERS IN INDIAN DUGOUTS ON LAKE QUENIULT *H. V. A.*

AN OUTPOST ON THE TIMBER-LINE

Mabel Furry

A wind-blown, storm-stricken tree in the upper Queets Basin. The precipitous rim of the Basin shows in the background. Planted in rock, these timber-line trees have a perpetual struggle for existence.



THE ASCENT OF WHITEHORSE

(ALTITUDE 6820 FEET)

AT 9:30 in the evening before Decoration Day, fifteen Mountaineers with their sleeping-bags got off the train at Darrington for a two days' trip exploring Whitehorse with H. B. Hinman as leader. On May 31st Dr. Guy Ford and Will Dolph of Everett and S. V. Bryant of Seattle left camp at 5 a. m. and reached the summit at noon. The great snow storms of the winter had covered up the dangerous rocks, making the ascent quite safe though difficult on account of the steepness of the snow slopes.

Bear Camp, on the ridge above camp, was reached in a little over two hours and a view obtained of what was thought to be the summit. To get there the explorers had to drop down a little, circle round the mountain for a mile, and climb up a steep snow slope through Goat's Pass on to the glacier. Here it was discovered that the peak seen was only one of the lower pinnacles and that the summit was over the steep snow ridge above. Gaining this ridge they saw that the summit was still somewhere higher up at the back of another snow wall.

Continuing the climb they at last saw some bare rocks above which could only be reached by ascending an almost perpendicular snow finger. This they succeeded in doing and found themselves indeed on the summit.

A wonderful view was obtained of Mount Baker, Shuksan, Glacier Peak, the Cascades, and the valleys of the Sauk and North Fork of the Stilliguamish. An extraordinary sight here at the top was hundreds of lady bugs on the rocks disporting themselves in the sunshine.

A flag made from a dish towel tied to a stick of Alaskan cedar, carried up from one of the lower ridges for the purpose, was hoisted with befitting honors and planted in a cairn of rocks. An account of

the trip with the names of the climbers was placed in a bottle and left in the cairn as documentary evidence of their visit.

To leave such a glorious panorama of scenery behind was the hardest part of the descent. Once started, however, there was no stopping. At least three thousand out of a little over four thousand feet climbed were suitable for coasting. The ascent from Goat's Pass to the summit was made in an hour and a half of really hard climbing, but the descent was made in twelve minutes.

S. V. BRYANT.

R. L. G.

GHOST CEDAR

Chas. Albertson

OLYMPIC ELK
(CERVUS ROOSEVELTI)

An antlered monarch on his wild mountain range. Taken on the Queniult side of the Marion Gap at a distance of seventy-five feet. The Olympic Peninsula, with its summer upland parks and its winter valleys of feed and protection, is an ideal home for these native, wild, and picturesque animals.

THE MOUNTAINEERS

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Charles M. Farrer, secretary.....508 Pioneer Bldg.
Redick H. McKee, treasurer.....328 Globe Bldg.
Gertrude I. Streator, historian.....1726 15th Ave.
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A. H. Denman.....Nat'l Bank of Commerce Bldg., Tacoma
Charles Hazlehurst.....1020 Seneca St.
Dr. H. B. Hinman.....1612½ Hewitt Ave., Everett
Roy Hurd.....1522 6th Ave.
P. M. McGregor.....302 Cobb Bldg.
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Everett Mountaineers

The past year's work of the Everett Mountaineers has been the most satisfactory since its organization. The membership is now sixty-six and several applications are promised for the near future. During the year twenty Sunday walks with an average attendance of thirty and three Saturday walks with an average of nine have been held. The best attendance was on the Rhododendron walk when sixty-four were present.

A three-day trip, including Decoration Day, to Whitehorse mountain, with seventeen attending, was the best and most successful outing the Everett club

has yet held. Three members of the party succeeded in scaling the summit, which had never before been reached.

Nine members of the club attended the annual outing in the Olympics and one went with the Mazamas to Mount Adams.

During the year we compiled and printed a booklet containing all the Mountaineer songs that had been written up to that time.

In addition to the regular activities of the club, there have been many private parties organized among the members for short trips to Lake Isabel, Lake Serene, the ascent of West Index, etc.

The stereopticon lectures have been largely attended by the public and general interest in mountaineering greatly augmented.

H. B. HINMAN, Chairman.

Tacoma Mountaineers

The Mountaineers in Tacoma organized as a local branch March, 1912. The average membership numbers about thirty. However short the Tacoma members have come from accomplishing what they should, they certainly have had a good time, have been a happy family, and have thoroughly enjoyed their organization. The local walks have been especially successful. The organization has to its credit a successful summer outing to Beljica Peak and a four days' winter outing to Longmire Springs that gave us fame—in some respects more than we knew what to do with. A few public meetings have been held that excited great interest in circles outside of the club. The newspapers—the Ledger, the News, and the Tribune—have all been most kind in their mention and liberal with their space. As a result the Mountaineers are well and favorably known to Tacoma people.

There should be more members, more walks, more outings, and more meetings. There are many men in Tacoma of fine outdoor accomplishments and scientific attainments in those lines that especially concern the Mountaineers, who should be enlisted. Our problem is to get them interested in the good they can do and the increased prominence their work would attain through the club. Then, again, we need to develop and enlist a reliable, seasoned body of outdoor people such as Seattle has. This is best accomplished by increasing the number of those outings requiring two or more nights' sleep in the open, discarding all possible impedimenta and involving tramping and climbing. The greatest work of the Mountaineers is to teach and to show people how to enjoy their splendid heritage of forest reserves and national parks.

A. H. DENMAN.

MONTHLY MEETINGS

DECEMBER 20, 1912—NOVEMBER 21, 1913.

December 20, 1912, Chamber of Commerce. Mr. R. D. Lindsley presented slides showing the Chelan country in colors.

JANUARY 17, 1913.

The president, Professor Meany, told of "The inauguration of the first governor of Washington," giving a splendid opportunity to hear of one of the most interesting periods in the history of our state.

FEBRUARY 28, 1913, COMMERCIAL CLUB ROOMS

It was indeed a rare opportunity to hear the president, Professor Meany, tell of the lives and work of the presidents of two other American mountain clubs—John Muir, president of the Sierra Club, and Enos A. Mills, president of the Rocky Mountain Club.

MARCH 22, 1913, COMMERCIAL CLUB ROOMS

A forecast of the summer outing for 1913. Illustrated lecture by L. A. Nelson.

APRIL 18, 1913, COMMERCIAL CLUB ROOMS

The Lakotas invited the Mountaineers to attend the public installation of officers. Professor Meany gave the history of the Lakota-Nakota-Dakota-Sioux Indians and their part in the history of the great Northwest.

MAY 23, 1913

Yellowstone National Park—illustrated lecture by Doctor Henry Landes, University of Washington.

The first president of the Mountaineers gave a most interesting lecture, not only of Yellowstone, but also of Glacier Park, the youngest of our national parks.

JUNE, JULY, AUGUST, 1913. NO MONTHLY MEETINGS

SEPTEMBER 19, 1913, COMMERCIAL CLUB ROOMS

Regular business meeting. Nominations for the Board of Directors.

OCTOBER 17, 1913

Alaska kelp beds and effects of recent volcanic activities—illustrated lecture by Mr. George B. Rigg, assistant professor of botany, University of Washington.

NOVEMBER 21, 1913

Mr. L. A. Nelson told the story of the Olympic outing, illustrated by lantern slides.

GERTRUDE INEZ STREATOR.

WESTERN MOUNTAIN CLUBS

The Colorado Mountain Club

The climax of an active summer season in the Colorado Mountain Club was the second annual outing, held August 11th to 23d, 1913. The main camp was situated near Mount Hallett (altitude 13,000 feet), on the margin of Estes Park and about ten miles northwest of Long's Peak (altitude 14,255 feet). About fifty people attended the outing and about three-fourths of those climbed Long's Peak. During the course of the camp, about a half dozen peaks in excess of 12,000 feet in altitude were climbed and a number of residual glaciers and lakes were visited.

The 1913 summer and fall schedule of local walks and climbs included seventeen one-, two-, and three-day trips into the front range of the Rocky Mountains, including an ascent of Pike's Peak by moonlight.

The club is issuing a series of leaflets on topics connected with the Rocky Mountains, carrying on a series of public lectures, two photographic contests a year on mountain subjects, and is very actively pressing the campaign for the creation of the proposed Rocky Mountain National Park in north-central Colorado.

The club, which is now about the middle of its second year, has a membership of nearly 250.

JAMES GRAFTON ROGERS, President.

Rocky Mountain Climbers' Club

The summer of 1913 was the most successful in the history of the Rocky Mountain Climbers' Club, which has its headquarters at the Colorado Chautauqua, Boulder, Colorado. There were two hundred new members from eighteen states and spirits and enthusiasm ran high. Many short tramps were made into the mountains near Boulder which accustomed the members to climbing and led up to the big trips of the season. Among the notable events of the summer were: All night on Flagstaff Mountain; Royal Arch day, when the club climbed to Royal Arch and returned in time to give a big Mountain Day program in the Chautauqua auditorium, and the trip to the Arapahoe Peak and glacier. The auditorium program was most interesting and unique. In tableaux, pantomime, and drama, it pictured "The evolution of mountain life." Ten scenes were used showing the development from the time of the Indians to the present time of the mountain climbing clubs. Twenty-six members of the club reached the summit of Arapahoe Peak, which is 13,520 feet above sea level. On its side lies the most typical glacier in the state. It covers about 200 acres, and has great, yawning crevasses of unknown depth, and distinct moraines. It is the source of Boulder's municipal water supply.

F. A. BOGGESS, Corresponding Secretary.

The B. C. Mountaineering Club

The present year's climbing season with this club has been a very successful one. The summer camp was again held at Garibaldi Lake, near Mount Garibaldi, and was attended by thirty members. The exploratory work of previous years was continued with pleasing results, especially regarding the botany and geology. The club's botanical section was well represented at the camp, and, aided by Mr. J. Davidson, provincial botanist, did excellent work, with the result that the knowledge of the interesting flora of the district has been greatly increased. Many fine specimens were obtained which will be kept for future reference. Prof. Burwash made an examination of the geology and found the Garibaldi region highly interesting. A large part of it belongs to recent volcanic times, perhaps to the most recent yet noted in British Columbia. Also a few interesting zoological specimens were collected.

Besides the summer camp, the usual week-end climbs amongst the mountains adjacent to Vancouver were continued and well attended, which shows that the interest in western mountaineering is steadily increasing. During the winter numerous snowshoe trips will be made in the local mountains.

W. J. GRAY, President.

With the Mazamas 1913

On the morning of August 2d there gathered at the North Bank Station, Portland, Ore., about fifty persons for their annual excursion to scale some mountain peak. This time Mount Adams had been chosen as the one to conquer. Boarding the S. P. & S. train, our party was rapidly whirled away up along the banks of the Columbia river for a distance of 75 miles to White Salmon. Automobiles were in waiting at White Salmon to take the party inland. A bountiful luncheon was served about a mile from the station at the Jewitt ranch. Here a grand view of the Hood River Valley, Columbia river and Mount Hood to the south could be obtained.

Boarding the autos again we were carried rapidly up the White Salmon Valley. For several miles the road led past many orchards, and the hills were dotted with the homes of the ranchers, then crossing the river the way led for

several miles through the native forest, where glimpses of Mount Adams could be obtained. At a distance of 28 miles north of White Salmon the winding road brought us out to Trout lake, a level valley dotted with the ranches of a few hardy settlers. About a mile north of Trout lake, on the banks of the river, temporary camp was pitched for the night.

Next day a walk of seven miles and return was made, visiting the lava and ice caves west of our camp. The next day the march to the permanent camp was made, 15 miles to the north. Here in a clump of pines, in a little valley on the south slope of Mount Adams, we found an ideal camping spot already chosen for us at an elevation of 5000 feet.

The first few days in camp were spent in short trips to the glaciers on the south and east sides of the mountain. Avalanche, Mazama, Klickitat, and White Salmon glaciers were visited in easy climbs from camp. Several parties also climbed to the summit before the official climb.

Mount Adams, standing alone as it does, and high above any of the surrounding hills, affords a magnificent view of the country for miles around on every side. Mount St. Helens, Mount Hood, and Mount Rainier all seemed but a mile or two away. The summit of the mountain and the upper slopes were covered with snow, so our party enjoyed some of the grandest coasting to be had on any mountain. Unfortunately cold weather occurred on the day of the official climb and prevented a number from reaching the summit.

On August 17th camp was broken and most of the party returned home over the same trail, regretting that the time was so limited.

J. A. VARLEY.

Sierra Outing to King's River Canyon

The 1913 outing party of the Sierra Club reached Independence in Owen's Valley the morning of July 3d and staged to Pine Canyon. The next day's climb of 5800 feet to Kearsarge Pass (11,823 feet) was a severe test of endurance for the two hundred mountaineers. Camp was established at Vidette Meadows for two days, giving opportunity for several interesting climbs, notably University Peak (13,588 feet) and Mt. Stanford (13,983 feet), for visits to the Vidette Lakes or Lake Bryanthus, or for fishing parties at Lake Charlotte. On July 7th the main party descended to the King's River Canyon while nearly eighty knapsackers crossed Glenn Pass and visited Rae Lake and Paradise Valley before joining their comrades in King's Canyon. Side trips, climbs of the Grand Sentinel, fishing and picnic parties, occupied the time until the twelfth, when the whole party started across Granite Pass (11,333 feet) for the Middle Fork of the King's and Simpson Meadows. This was the first time a main camp had been established in this region, owing to its inaccessibility, and it was therefore new country to the majority of the party. Knapsack trips to the Upper Basin of the South Fork, to Triple Falls and Marion Lake, to the Palisades and Mount Goddard, and to Grouse Valley were taken, and the ascents of Woodworth mountain and the North Palisade (14,000 feet) accomplished in spite of the unprecedented and continuous storms encountered on this part of the trip. Tehipite Valley with its wonderful dome was next visited and the return trip made through the forest country and across the North Fork of the King's to Shaver, where a logging train carried the party to Fresno. Neither accident nor illness marred the trip, which was one of unusual interest, including as it did the crossing of the Sierra Nevada Range from east to west and the exploration of the little known regions surrounding the basins of the three forks of King's River.

MARION RANDALL PARSONS.

SCIENTIFIC NOTES

EDITED BY GERTRUDE STREATOR

THE SUBMERGED FOREST IN LAKE SAMMAMISH

Lake Sammamish, a little lake parallel with Lake Washington, lies a short distance to the eastward. "The land separating the southern portion of the bodies of water might be termed mountainous; many of the hills rise from 1000 to 1500 feet from the base, and are covered mostly with a dense growth of trees."[1]

There is a submerged forest which occupies forty to fifty acres of the bottom of this lake near the west bank.[2] The trees stand erect with their roots anchored in the mud, but with their tops extending from one to four feet above the surface of the water, some of the largest ones measuring three to four feet in diameter. The bark has been worn away; yet snags from broken-off branches may still be seen on the trees when the water is low.

The theory has been advanced that this forest once occupied a position on the steep west shore,[3] but through some cause has slipped down into the water. The soundings of the lake, which are uniform except at this particular place, would verify this theory.[4]

The accompanying maps were drawn by Redick H. McKee and Arthur Nation, who used the U. S. Geographical Survey Topographical map, Seattle sheet. (Topography by G. E. Hyde and R. H. McKee.)

1 Post-Intelligencer, Feb. 27, 1898. "Explorations and soundings in Lake Sammamish—Theories of a submerged forest in the Lake." Compiled by Professor Edmond S. Meany.

2 See map.

3 See detail map.

4 Compare the two maps.

LEGEND OF THE SUNKEN FOREST OF LAKE SAMMAMISH

The following legend of the sunken forest in Lake Sammamish is gleaned from talks to Lee Monohon of Renton by Jimmy Moses, an Indian at Renton, and Chief Rodgers of Suquamish on the Port Madison Indian Reservation:

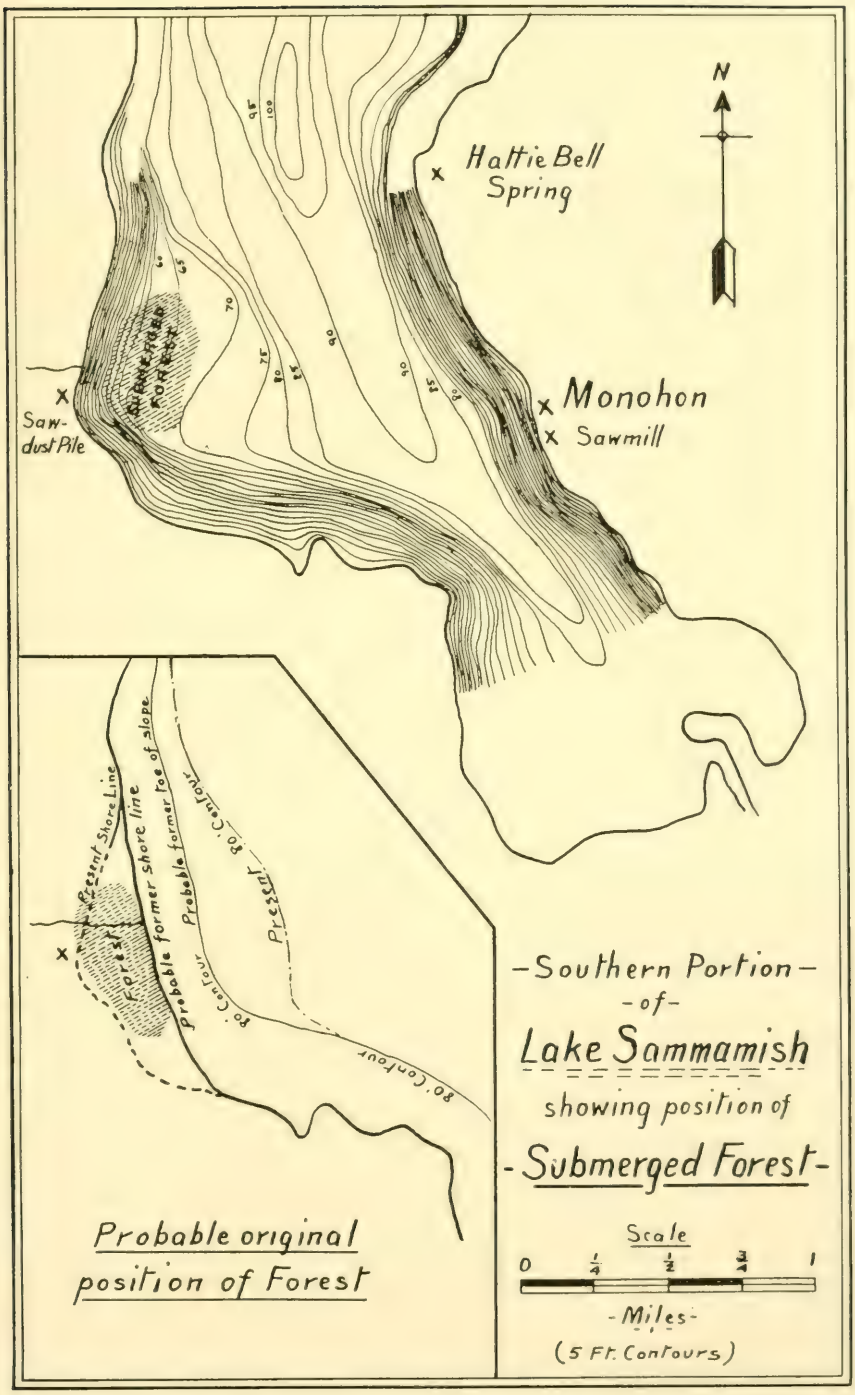
Long, long ago, a great tribe of Indians came from east of the Cascade mountains to make war on the Indians living along the shores of Lake Washington and Lake Sammamish. They intended to conquer the Lake Indians and take their homes for their own.

The battles were fierce and the Eastern Indians were generally victorious. After a number of years of such desperate struggle, the Lake Indians took what they thought was a last stand around Lake Sammamish.

Saghalie Tyee, the Great Spirit, took pity on the Lake Indians. He told the enemies to go to their own homes over the mountains and let peace be restored. When they refused, the Great Spirit was angered.

During the years of fighting there was no time for fishing or hunting. Both sides were living on roots that grew in the shallow waters on the edges of the lakes. These are called by the Indians "wapato." The supplies were running low and soon one side or the other must yield through starvation.

It was then that the Great Spirit came to the rescue of the Lake Indians. He caused trees to grow up from the bottom of Lake Sammamish. The Lake


N
Hattie Bell Spring
Monohon
Sawmill
Saw-dust Pile
Standing Forest
Present Shore Line
Probable former shore line
Probable former toe of slope
80' Contour
Present
80' Contour
Forest
80' Contour
Probable original position of Forest
-Southern Portion-
-of-
Lake Sammamish
showing position of
-Submerged Forest-
Scale
0 1/4 1/2 3/4 1
-Miles-
(5 Ft. Contours)

Indians were rejoiced at this evidence of favor from the Great Spirit and especially as they found "wapatoes" sprouting from the branches of those trees.

The Eastern Indians were not experts with canoes as the Lake Indians were. They never suspected there was a storehouse of food so far from the shallow water of the shore. Their hunger increased and they had to give up their fighting. They went back over the mountains to their old homes.

As the years rolled on, the Lake Indians pointed their children's attention to the sunken forest as evidence of the kindness of Saghalie Tyee to their forefathers in the long ago.

ALASKA KELP BEDS

The following facts were condensed from notes taken at an illustrated lecture given before the Mountaineers by George E. Rigg, assistant professor of botany, University of Washington.

The United States Bureau of Soils began in 1911 to investigate Pacific Coast kelps as a source of potash fertilizer. This was done under authority given them by the United States Congress. This authority was given by Congress because Germany had put some limitations on the export of potash from the Stassfurt deposits in that country. Several sources of potash were investigated in different portions of the United States, but the kelps of the Pacific Coast of the United States, including Alaska, have been found to be the most available source of potash, needed in this country for fertilizers and for other purposes. It has been clearly demonstrated now that we have an abundant supply of kelps and that the potash content of these kelps is from 20 to 40% of their dry weight, their dry weight being about 10% of their green weight. It is also known that there is a good market for this potash. Some details of the methods of harvesting the kelp and preparing it for use as fertilizer remain to be worked out. The largest supply of kelp is on the coast of Alaska, with California second and the Puget Sound region third. The kelp on the California coast is mainly Macrocystis, that in Puget Sound is mainly Nerocystis, and that on the Alaska coast is Nerocystis and Alaria, the former predominating in southern Alaska and the latter in western Alaska.

Potash fertilizer from kelp can probably be used advantageously, in connection with nitrogenous and phosphate fertilizer obtained from fish, to make a balanced fertilizer. The kelp beds are all owned by the states or territories on which they border. California is the only state that has a law covering the cutting of kelp. Kelp is actually being produced and sold as fertilizer in California and preparations for its production and sale are being made on Puget Sound and in Alaska.

SECRETARY'S REPORT

The year 1913 will probably be remembered by the Mountaineers more for the pleasure experienced by those who were fortunate enough to participate in the summer outing than for any other one thing. The trip was unique in many ways and many friends from distant states helped to make it enjoyable. The outing committee did some splendid work and on account of some of their labor, future committees will doubtless have less to do in the matter of getting data on which to base their plans for the commissary, etc.

Early in the year, a special committee remodeled the constitution and by-laws and the organization is now incorporated.

Auxiliary organizations having twenty members are now entitled to elect a trustee of their own in addition to voting for the trustees at large.

Three classes of members are provided for: active, life and honorary.

During the last session of the Legislature an effort was made by the club to have the sea-beach in Jefferson and part of Clallam County made a public highway. Also to have the State purchase certain tracts of land on the summit of Mt. Constitution and thereby avail itself of Mr. Robert Moran's generous offer to donate 2,700 acres owned by him at that point. He wishes to have a state park there and so save that wonderful spot for the pleasure of all the people.

The Legislature was so busy with other matters that we were unsuccessful in getting any action at that time.

Much correspondence has been carried on in helping in the great fight being made by the Sierra Club of San Francisco against granting to the City of San Francisco, the Hetch Hetchy Valley as a site for a water and power project.

We also helped the Rocky Mountain Club and Mr. Enos A. Mills in their efforts to secure favorable action on the bill creating the Rocky Mountain National Park.

Through Congressman Bryan and the U. S. Geographic Board, we were successful in our endeavors to have the popularly named Mount Index made the official Mount Index, instead of the east peak, now so named on the maps, which has been changed to Mount Baring.

An active committee is planning for the building of a lodge at some suitable location in the Cascades, where many good climbs and walks may be had within a reasonable distance. It is thought that it will be a great convenience and pleasure to our members to have such a refuge and headquarters for short outings in winter and summer.

Our membership list shows members in good standing and pending applications to the number of 489. CHARLES M. FARRER, Secretary.

TREASURER'S REPORT, YEAR ENDING OCTOBER 31, 1913

GENERAL FUND

Receipts

Cash on hand October 14, 1912	$ 306.40	
Bonds redeemed	600.00	
Interest on bonds	70.00	
Received from dues	1,443.00	
Received from sale of pins	6.75	
Received from sale of watch fobs	1.25	
Received from sale of Annual (1912)	81.41	
Advertising in Bulletin and Prospectus	145.00	
Advertising in Annual (1912)	117.50	
		$2,771.31

Disbursements

Refund to branches	101.00		
Outing committee (trail work in Olympics)	200.00		
Stocks and bonds	721.00		
Accrued interest on bonds	2.31		
Pictures and slides	58.45		
Bulletin and Prospectus	236.25		
Mailing and addressing	179.12		
Annual, 1912	571.12		
Assistant Secretary (salary)	143.75		
Printing and stationery	92.90		
Miscellaneous	65.90		
		2,371.80	
			$ 399.51

PERMANENT FUND

Receipts

Cash on hand October 14, 1912	$ 193.07		
New members	159.00		
Interest on bonds	$14.00		
Interest on savings account	9.71		
	23.71		
			$ 375.78

OUTING FUND

Receipts

Cash on hand October 14, 1912	$ 15.17		
Outing, 1912, sale of provisions	6.76		
Outing, 1912, sale of rope	1.00		
Members of Outing, 1913	5,337.65		
Outing, 1913, miscellaneous sales and refunds	130.81		
General fund (trail work in Olympics	200.00		
		$5,691.39	

Disbursements

Reconnaissance (Mount Stuart)	23.00		
Reconnaissance (Stihekin and Agnes)	40.92		
Outing, 1913	4,487.52		
Miscellaneous	13.68		
		4,565.12	
			$1,126.27

LOCAL WALKS FUND

Receipts

Report from Treasurer	$ 101.15		

Disbursements

Printing	16.00		
			$ 85.15

LODGE FUND

Receipts

Cash received	$ 17.50		17.50
			$2,004.21

CASH BALANCES

National Bank of Commerce	$1,628.43		
Bank for Savings	375.78		
			$2,004.21

Treasurer's balance (National Bank of Commerce)		$1,628.43
Outstanding checks Nos. 128, 129, 130		8.15
National Bank of Commerce (bank's balance Oct. 31, 1913)		$1,636.58

ASSETS

General Fund—Cash on hand	$ 399.51		
General Fund—Bonds on hand	1,121.00		
		$1,520.51	
Permanent Fund—Cash on hand	375.78		
Permanent Fund—Bonds on hand	200.00		
		575.78	
Outing Fund—Cash on hand		1,126.27	
Local Walks Fund—Cash on hand		85.15	
Lodge Fund—Cash on hand		17.50	
			$3,325.21

LIABILITIES

Accounts payable (Outing Fund, 1913)	$ 369.70	
Surplus	2,955.51	
		$3,325.21

Respectfully submitted,

REDICK H. McKEE, Treasurer.

Audited November 15, 1913.
H. A. FULLER.
B. J. OTIS.

REPORT ON LOCAL WALKS

The Local Walks Committee submits the following report for the year ending October 12, 1913:

There have been during the year
26 Sunday walks
3 Saturday walks
1 Moonlight walk, and
1 Special outing.

Average number of people on Sunday walks, 82.4
Average distance on Sunday walks, 10.7 miles

There were 99 people on one Saturday walk. From the other two there was no report. On the Moonlight walk there were 110 people. Largest number on any one walk, 265.

A special boat was chartered for seven of the walks.

Money expended by the committee for transportation by rail and boat, $757.90.

FINANCIAL STATEMENT

Oct., 1912. Balance on hand	$	9.00
Received during the year		1242.40
Total	$	1251.40
Expenditures during year		1150.25
Oct. 12, 1913. Balance on hand (on deposit in Northern Bank)	$	101.15

Respectfully submitted,

G. R. HURD.

No.	Date	Route	Miles	Leader	Attend.	Exp. per Person	Net Gain
	1912						
166	Oct. 13	Maple Valley to Renton	16	Mary L. Hard	38	$0.95	$ 3.05
167	Oct. 19	(Sat.) Magnolia Bluff	6	Maud Johnson	...	.10	....
168	Oct. 27	Chico to Hidden Ranch	7	Mary Paschall	164	.50	15.95
169	Nov. 10	Cedar Mountain to Renton	11	Nancy E. Jones	30	.70	2.05
170	Nov. 24	Suquamish to Miller's Bay	9	Susanna Kellett	135	.60	11.55
171	Dec. 8	Fauntleroy Park to South Park	11	H. W. Playter	94	.10	7.55
172	Dec. 15	Colby to Port Orchard	10	Joe Peterson	45	.50	....
	1913						
173	Jan. 5	Kirkland to Bothel	10	Frank G. Pugsley	79	.45	7.96
174	Jan. 19	Manette to Silverdale	7	H. V. Abel	79	1.00	1.25
175	Feb. 2	End of Phinney Car Line to Bothel	13½	J. C. Nutting	63	.35	5.30
176	Feb. 16	Keysport to Tracytown	10	Chas. Albertson	121	.60	5.40
177	Mar. 2	Bellevue to Newport	10	Arthur Nation	65	.30	6.95
178	Mar. 15	(Sat.) "Know Your City Walk"	6	Prof. Moritz	...	.05	....
179	Mar. 16	Ollalla to Gig Harbor	9	Mrs. E. K. Triol	69	.60	....
180	Mar. 30	End of Ballard Beach Car Line to Ravenna	14	Chas. Hazlehurst	87	.10	8.05
181	Apr. 13	Mercer Island Walk	9	Alma Elofson	112	.25	11.75
182	Apr. 20	Joint Walk with Everett	11	Dr. H. B. Hinman	...	.96	....
183	Apr. 27	Scandia to Bangor	14	Harry W. Lung	128	.60	9.95
184	May 11	South Park to Tacoma	26	Lulie Nettleton	20	.55	1.70
185	May 11	Violet Walk with Tacoma Mountaineers	8	Crissie Cameron	50	.90	.10
186	May 23	Moonlight Walk, End Alki Car Line to Lincoln B'ch.	2	Helen Crisswell	110	...	....
187	May 25	Chico to Wildcat Lake	13	Mary Paschall	265	.50	17.90
188	June 8	Tulalip Indian Reservation Walk	8	William Shelton	124	.75	....
189	June 15	Climb of McClellan's Butte	6	H. V. Abel and H. W. Playter	20	3.25	2.00
190	June 21	(Sat.) Camp Fire Walk, Lincoln Beach	2	Committee	99	.10	2.75
191	June 29	Laconia to Upper Falls of the Snoqualmie	8	H. A. Fuller	83	1.60	6.45
192	July 13	Climb of Chair Peak	7	Chas. Hazlehurst	26	3.00	.85
193	Sept. 14	Crescent Beach to Fauntleroy	9	Helen Crisswell	61	.35	....
194	Sept. 28	Kirkland to Bellevue	12	Frank G. Pugsley	65	.35	6.10
195	Oct. 12	Colby to Port Orchard	10	Joe Peterson	106	.60	9.65
		Special Outings					
15	Feb. 22	Scenic Hot Springs	..	P. M. McGregor	41	8.50	11.70

THE MOUNTAINEER LODGE

During the summer outing in the Olympics the idea of a lodge was suggested and was so well received that at a camp-fire in the Elwha Basin it was "decided by unanimous vote that a lodge should be built in some location in the mountains which would be of the greatest benefit to the greatest number throughout the year. Mr. Edward Allen, one of the originators of the present plan, started a subscription list with the result that over $300 was subscribed by the party." After the outing Mr. Allen was called away from the city and the work was continued by Mr. S. V. Bryant. He has increased the subscription nearly to $600 with amounts ranging from $1 up. The lodge idea has grown, and in September it reached the stage where the Directors gave it their full and hearty approval and appointed a Lodge Committee with Mr. Bryant as chairman and with Mr. Charles Hazlehurst, Mr. Irving M. Clark, Mr. J. Harry Weer, and Mr. Charles Albertson as members. The Committee was organized with Mr. Clark as secretary, and the work of gathering data, increasing the subscription list, and scouting for a location was undertaken.

Information has been gathered from the mountain clubs in this country and in Europe. It is found, however, that not a great deal of the data bears on the Mountaineer lodge problem, and that we will, therefore, have to solve it alone. The Southern Section of the Sierra Club gave the most valuable experience for the lodge purpose. Their "Muir Lodge," opened October 4, 1913, in the Big Santa Anita Canyon, twenty-seven miles from Los Angeles, has many of the points that it is hoped the Mountaineer lodge will have.

The subscription list is growing, and not all of the members have as yet been approached on the question. The lodge, it is estimated, will cost about $1000; yet it is earnestly hoped that a larger sum than that can be secured so that the lodge can be put in the best possible shape.

The site will no doubt be in the Cascades some three or four hours' ride from the city with a fare of about three dollars or less for the round trip. The Committee is scouting all possible places in order to secure the greatest possible number of advantages.

The lodge should have, among others, the following points: accessibility to the bulk of the membership; accessibility all the year; a pleasing, simple, and home-like building with a large veranda, a large assembly room with a massive fire-place, a kitchen, women's and men's rooms, and sleeping arrangements; there should be a beautiful mountain view; it must be located so as to provide a day's or several days' tramp to peaks, lakes, etc., and to make possible the enjoyment of the winter sports.

The lodge should serve for week-end trips, summer and winter, and should also provide an outing place for those who do not go on the Mountaineer Outing.

It is hoped that every member will subscribe, so that each one will feel part possessor of and have a personal interest in the lodge.

As soon as the money is raised, the plans arranged, and the site definitely selected, the Committee is authorized to begin the building. The present indications are that the lodge will be open for use within less than a year of its inception.

IRVING CLARK,
Secretary of Lodge Committee.

RECORD OF MOUNTAINS CLIMBED BY THE MOUNTAINEERS ON THE SUMMER OUTING, 1913

1. Mount Seattle. Elevation 7,100. Aug. 7. Number who made ascent, 79.
2. Mount Olympus. Elevation 8,200. Aug. 10. Preliminary climb made by 2.
3. Mount Olympus. Elevation 8,200. Aug. 11. Number who made ascent, 67.
4. Mount Meany. Elevation 7,300. Aug. 13. Number who made ascent, 20.
5. Mount Barnes. Elevation 6,400. Aug. 13. Number who made ascent, 21.
6. Mount Christy. Elevation 7,000. Aug. 15. Number who made ascent, 54.
7. Mt. Seattle. Elevation 7,100. Aug. 16. Number who made ascent, 5.

Total: 7 peaks; number of people who climbed, 248.

The numbers from 1 to 7 which occur after the following names indicate the mountains climbed by each person, e. g., 1, Mt. Seattle, 3, Mt. Olympus, etc.

Abel, H. V. 1-3-4-6
Albertson, Charles 1-3-6
Allen, Edward W. 1-3-5-6
Allyn, Mary E. 1-5
Annesley, Inez M. 1-3
Bailey, Winona 1-3-6
Baptie, H. May 1-3-4-6
Barlow, Jessie C. 1-3-6
Bascom, Mrs. E. T. 1-5
Bascom, E. T. 1-3-5
Bennett, Edith P. 5
Bishop, Lottie C. 1-5-6
Brown, Rev. Hugh E. 1-5-6
Bryant, S. V. 1-3-4-6-7
Burroughs, Edna 1-3
Burroughs, Hazel 1-3
Caldwell, Hugh M. 1-3
Cameron, Crissie 1-3-5
Chapman, Effie L. 1-3
Chilberg, Mabel 5
Clark, Irving M. 1-3
Clark, Leland J. 1-3
Coleman, Miss L. M. 1-3-6
Culmer, Myrtle A. 1-6
Davis, Fidelia A. 1
Deiwert, Myron M. 1
Denman, A. H. 1-3-5
Ewing, I. M. 1-3-6
Eckelman, E. O. 1-3
Ernst, Rudolph H. 1-3
Fogg, Garda 1-3
Fromme, R. L. 6
Fromme, Mrs. R. L. 6
Fuller, Howard A. 1-3-6
Furry, Mabel 3-6
Gist, A. S. 1-3-6
Gleason, Charles S. 1-3-5-6
Glisan, Rodney L. 1-3-4-6
Gorham, Kathleen .....
Gracie, Helen .....
Greenleaf, Joseph T. 6
Greiner, F. W. 1-3-6
Hack, Dr. E. M. 1-3
Hagman, Reuben J. 4
Hall, Emily 1
Hall, F. S. 3
Hall, John L. 1-3
Hanna, Ruth 1-5
Hard, Mary L. 1-3-4-6
Hargrave, Margaret 1-3-6
Hazard, Joseph T. 1-3-4-6
Hazard, Mrs. Joseph T. 1-3-6
Hazeltine, Dorothy M. .....
Hazlehurst, Charles 1-3-6
Helsell, Frank P. 1-3
Hinman, Dr. H. B. 1-3-4
Hinman, Mrs. H. B. .....
Hobert, Clyde 1-5
Howard, Grace 1-3-4-6
Humes, Grant 4-6
Irish, Evelyn .....
Jones, Nancy E. 1-5-6
Kidd, Jessie A. .....
Kratsch, Ida 1-3-6
Lear, Harry B. 1-3
Lee, John A. 1-3-6
Lytle, Mary 1-5-6
McElrath, Mrs. Alice E. .....
MacFarland, Winifred 1-3-6
McGregor, P. M. 1-2-3-4-6
Mason, Allen C. .....
Mathews, Vida .....
Meany, Professor Edmond S. 1-3-4-6
Montague, Jack .....
Montague, Richard W. 6
Moritz, Prof. Robert E. 1-3-6
Morrison, C. G. 1-3-4-6-7
Nelson, L. A. 1-2-3-4-6
Nettleton, Lulie 1-3-4-6
Olson, Karen M. 1-3-4-6

Parsons, E. T. 1-3
Parsons, Mrs. E. T. 1-3
Pearce, Duncan 3
Pope, Jeanette C. 1-6
Preston, Frank .....
Pugsley, Frank C.....4-6-7
Rand, Olive 3
Reid, Robert W. 1-3-6
Roberts, Nellie L. 1
Sayward, Perceval 1-3-4-6-7
Scholes, Josephine 3-6
Scholes, Stella 1-3-6
Shelton, Celia D. 1-5
Stackpole, E. B. 3-6
Streator, Gertrude I. 1-5-6
Todd, Luella 1-3-4
Tong, Georgia 1-3-5-6
Torrey, Britannia G. .....
Udall, Mrs. W. H. 1
Umphrey, G. W. 1-3
Wagen, Alma D. 1-5
Walker, A. Martha 1-3
Weer, J. Harry 1-3-4-6-7
Weer, Mrs. J. Harry.....1-3-6
Wood, Dr. N. P. 5-6
Wright, Elizabeth 1-5
Wright, George E. 1-3
Wynn, Inez 1-3-6

GERTRUDE INEZ STREATOR.

FINIS

C. A.

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San Francisco, 1915

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R. M. CALKINS, Traffic Manager
Seattle

GEO. W. HIBBARD, General Passenger Agent
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Sleeping Bags, Blankets *and* Woolen Batts

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All Kinds *of* Bedding, Clothing *and*
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R. P. LOOMIS, *Assistant Cashier*

STATEMENT
OF THE

Metropolitan Bank
OF SEATTLE

AT THE CLOSE OF BUSINESS
OCTOBER 21ST, 1913

Resources		*Liabilities*	
Loans and Discounts	$1 015,051.74	Capital Stock	$ 100,000.00
Overdrafts	465.02	Surplus and Profits	104,378.43
Bonds and Warrants	90,165.91	Deposits	1,557,574.42
Furniture and Fixtures	10,000.00		
Cash and Exchange	646,270.18		
	$1,761,952.85		$1,761,952.85

White Building—Fourth and Union

Seattle Tent *and* Awning Co.

Manufacturers *and* Jobbers—Silk Tents
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Sportsmen—Sleeping Bags *and* Tarpaulins

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MARING & BLAKE ENGRAVING CO.

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ARMOUR BLDG.
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ZINC ETCHINGS
COLOR PLATES

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"The Mountaineer"

Volume VI, 1913
SECOND OLYMPIC NUMBER

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